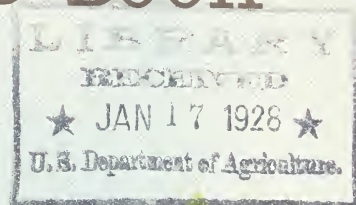


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DESCRIPTIVE SEED BOOK



D. N. Shoemaker

THE MANGELSDORF SEED CO.

EXCLUSIVELY WHOLESALE—ORDER FROM YOUR LOCAL DEALER

ESTABLISHED 1875

ATCHISON, KANSAS

The Home Garden Reduces the Grocery Bill



Your Home Garden may not be as neatly kept as this but every square foot will produce 2 to 5 pounds of green vegetables that would cost you 4c to 25c per pound at your grocery store, whether fresh or canned. They are cheaper and better out of your own Home Garden.

**The world owes you a living, but you must produce it yourself.
Start by ordering your seeds for the "Home Garden" today.
Good seeds make sure of better results.**



Vegetable Seeds

General List of Well Known Standard Varieties

OUR LIST OF VEGETABLE SEEDS embraces all the well known standard varieties, and such of the newer sorts as have proven of value. There are an endless number of new varieties introduced each year, and it is impossible for any one seedsman to give each a place in his catalog. In the following pages we have listed only varieties as are the best types of the class they represent and have proven satisfactory in our soils and climate.

ASPARAGUS

(1 oz. will product 500 plants)

Conover's Colossal—The standard variety. Very productive. Shoots of largest size and excellent quality.

Columbian Mammoth White—A new sort, producing very large, thick, white shoots, free from any green color. A pure white asparagus of largest size.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.

BEANS

Dwarf or Bush

(1 qt. to 100 feet of row)

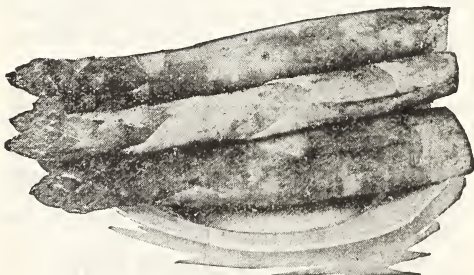
Culture—For the best crops, beans require good, rich soil and frequent hoeing. The young plants are very tender and cannot withstand even slight frost. The seed should not be planted until the soil has become well warmed and all danger of frost is over. Spade or plow deeply and plant in rows two feet apart, scattering the seed about three inches apart in the row and cover two inches deep. Hoe frequently, but never when the foliage is damp from dew or rain. Hoeing should be done shallow, so that the roots are not injured.

The hardier green podded sorts as: Stringless Green Pod, Early Valentine, are the first to be planted, followed by the Black Wax, Improved Golden Wax, Davis' Kidney Wax, Wardwell's Kidney Wax.

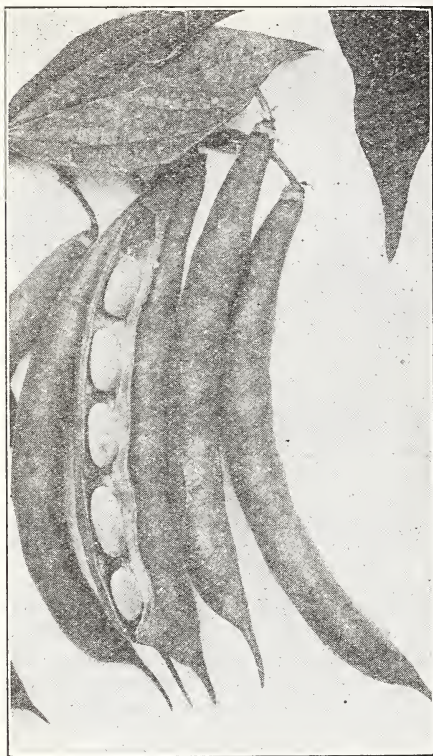
Green-Podded Sorts

Stringless Green Pod—Absolutely stringless at all stages of growth, and we recommend it highly. It is extremely early, becoming fit for use about six weeks from planting; is vigorous and hardy, and can be planted early. The pods are long, straight, fleshy and thick, of superior quality.

Improved Red Valentine—A decided improvement on Red Valentine. Plants are



Conover's Colossal



Beans, Stringless Green Pod.

BEANS— Continued

very hardy, resisting spring frosts better than most varieties, enabling the market-gardener to plant earlier; a quick grower and very good yielder. Pods are long and round.

Long Yellow Six Weeks—A green pod Bush Bean, which comes into bearing very early and continues throughout the season. Pods beautiful rich green, very thick, broad, long and uniform; meaty, tender, fine quality; absolutely stringless.

Bountiful—Very hardy and prolific and continues in bearing for several weeks. The pods are of immense size, rich, tender and entirely free from string.

Giant Stringless Green Pod—Somewhat similar to Valentine and Burpee's Stringless, but larger than either. Tender, stringless, fine quality and large size.

Shell or Navy Beans

Prolific Tree—Enormously productive; will yield fifty bushels of shelled beans per acre. The dry beans have the appearance of the common White Navy. The plant forms a strong upright tree, about twenty inches high, bearing the pods well up so that they do not touch the ground.

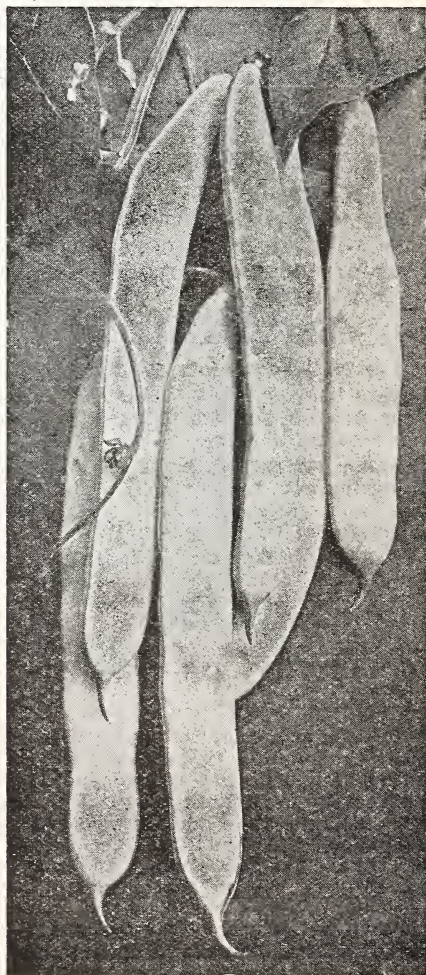
Wax or Yellow-Podded Sorts

Prolific or Black Wax—Reliable old Black

Wax, but greatly improved in every respect. The vines are vigorous, hardy and productive; the pods are $4\frac{1}{2}$ to 5 inches long, of a clear creamy-white color, fleshy, strictly stringless, fine-grained, of the best quality, and remain fresh a long time.

Improved Rust-Proof Golden Wax—Probably the most popular of the wax varieties and one of the best. Early and productive; pods 5 inches long, very stout, straight or slightly curved and oval in form; flesh brittle, stringless and of good quality; color bright yellow.

Davis' Kidney Wax—Hardy, productive and free from rust. Pods long, flat, straight and handsome; a valuable variety for the market gardener and canner; a good shipper.



Beans, Wardwell's Kidney Wax.

Wardwell's Kidney Wax—The largest wax variety and one of the best. A strong grower; the long handsome pods are stringless, brittle, and of finest flavor. A heavy cropper.

Pencil Pod Black Wax—The pods are of a light golden yellow color, almost round, very thick and meaty, and deeply ridged or saddle-backed; quite stringless and of fine flavor.

Prices: $\frac{1}{2}$ -lb., 15c; lb., 25c.

Pole or Running

(1 qt. to 200 hills)

Cut Short or Corn Hill—An old popular sort for planting among corn.

Kentucky Wonder Wax—The merits of the old Kentucky Wonder Pole Bean are well known, and in saying that this yellow-podded sort is even more prolific than its green-podded namesake, we give it a high recommendation indeed. It commences to bear when scarcely higher than the average bush variety and keeps on producing



Beans, Henderson's Bush Lima

until killed by frost. The pods are long and thick and fleshy; meaty, entirely stringless, and when cooked, of a delicious, rich, buttery flavor.

Kentucky Wonder or Old Homestead—Green podded, early and productive. Pods grow in large clusters and are very rich and tender, almost round, and sometimes nine and ten inches long. Excellent for snap beans.

Lazy Wife—This variety has become immensely popular in all sections of the country. It is the best green podded pole bean.

Horticultural or Speckled Cranberry—Short, broad green pods, which become streaked with red when nearly ripe. As a shell bean, either green or dry, it cannot be surpassed in quality. The beans are large and easily shelled.

Prices: $\frac{1}{2}$ -lb., 20c; lb., 35c; except Kentucky Wonder Green Pod, $\frac{1}{2}$ -lb., 15c; lb., 25c.

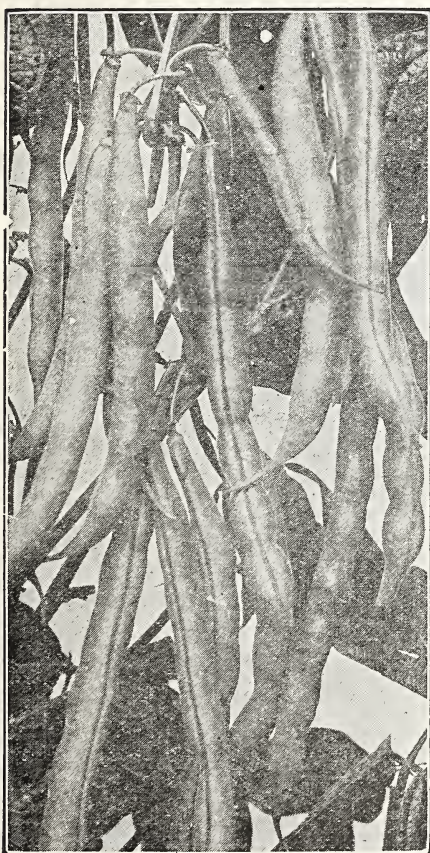
Pole and Dwarf Limas

Burpee's Bush Lima—Grows eighteen to twenty inches high, forming a strong and vigorous bush, on which large pods are produced in great numbers. Beans very large, easily shelled, and of very finest quality.

King of the Garden Pole Lima—The favorite tall growing sort. A vigorous grower; pods large and well filled with beans of rich flavor; favorite with gardeners.

Henderson's Bush Lima—Of true bush form. Enormously productive. Beans small, but of excellent flavor.

Ford's Mammoth Pole Lima—The pods are extra large, averaging about eight inches in length; completely filled with large



Beans, Kentucky Wonder.

BEANS— Continued

tender beans of finest quality and flavor. Enormously productive. Pods set early and continue in full bearing until cut down by frost.

Prices: $\frac{1}{2}$ -lb., 20c; lb., 35c; except Henderson's, $\frac{1}{2}$ -lb., 15c; lb., 25c.



Beet, Crosby's Egyptian

BEETS Table Sorts

(1 oz. to 50 ft. of drill)

Culture—The beet thrives best in deep, rich, sandy soil; one which the roots can penetrate easily. For extra early use the seed may be sown in the hot-bed and the young plants set out in the open, trimming off the outer leaves; they can be transplanted easily in moist weather.

For early use spade or plow deeply, sow seeds in rows eighteen inches apart, covering one-half inch deep. When three or four leaves have developed thin out to four inches apart in the row, allowing the strongest to remain. For main crop sow end of April. For winter use sow in June.

Crosby's Egyptian—The earliest of all. An improvement on the old Early Egyptian, being thick and having a more desirable shape. Deep red color; small tops, flesh crisp and tender. A leading market variety for extra early use.

Detroit Dark Red—A first class early sort for market or home use. Tops very small and will admit of close planting. The roots are round, smooth and of the deepest red color. Comes extra early, and is one of the best of all turnip beets.

Edmond's Improved Blood Turnip—A very fine strain of turnip beet, with small tops

and dark red roots. It is always sweet and tender and a good keeper.

Early Blood Turnip—This deep blood-red variety is early, sweet and tender, yet unsurpassed for solidity and keeping purposes.

Crimson Globe—An extremely handsome, second early or main crop beet, quite distinct. The beets are of medium size, about three inches in diameter, handsome form, with a smooth, clean skin and small tap root. The leaves are small with very slender stems. The shape is always remarkably regular and uniform, so that when washed and bunched for market they are of very attractive appearance. The flesh is a deep purplish crimson; sweet and tender and entirely free from stringiness.

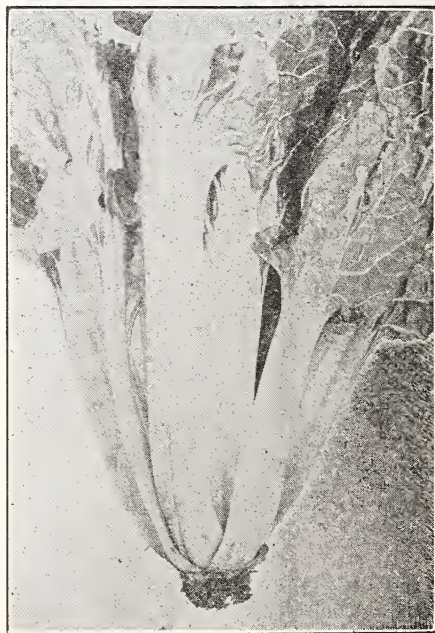
Half Long Blood—An excellent sort for winter use. Roots not as long as the Long Dark Blood Red, but considerably thicker; always smooth and handsome. Flesh sweet, tender, and of a dark red color. An excellent keeper.

Long Dark Red Blood—A good variety for keeping over winter. Flesh dark red, tender and sweet.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.

SWISS CHARD

Lucullus—Swiss Chard is unique in that it is a two-purpose vegetable. The outside leaves are used as boiling greens and are



Swiss Chard

most excellent for this purpose. The large white stalks are used like asparagus; they are boiled and served in melted butter and are fully as delicious and even more tender than asparagus.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.

BEETS

Sugar and Stock Feeding

(1 oz. to 100 ft. of drill; 6 lbs. per acre)

Vilmorin's Improved Sugar Beet—Roots grow below the surface. Very rich in sugar; will yield from ten to sixteen tons of roots per acre.

Kleine Wansleben—Larger than Vilmorin's; exceedingly rich in sugar, hardy and a good yielder. Easy to dig.

Mangel Wurzel

Mammoth Long Red—Enormously productive and yields from fifty to seventy tons to the acre. The roots grow well above the ground and are easily dug.

Golden Tankard—The leading yellow fleshed variety. Sweet and greedily eaten by all kinds of stock. Hardy and a good cropper.

Great Dane Half Sugar Mangel—This sort has been carefully selected by years of experience, as the best variety in all respects. It is a cross between one of the hardy Mangel Wurzels and a rich sort of sugar beet. It not only retains the hardy and yielding qualities of the Mangels, but contains a high percentage of sugar, making a very palatable and nutri-

tious feed. It will easily yield twenty-five tons per acre. A splendid sort for cattle and poultry feed.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 20c.

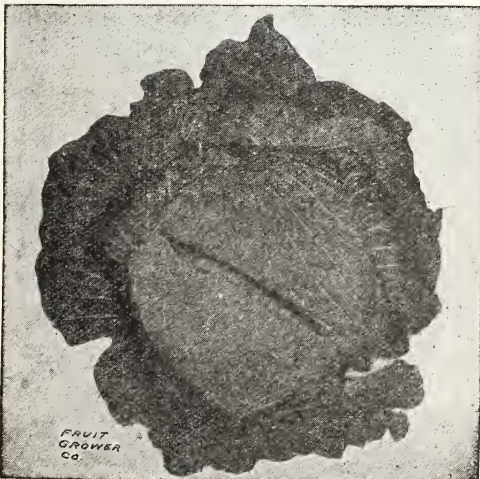


Beet, Golden Tankard

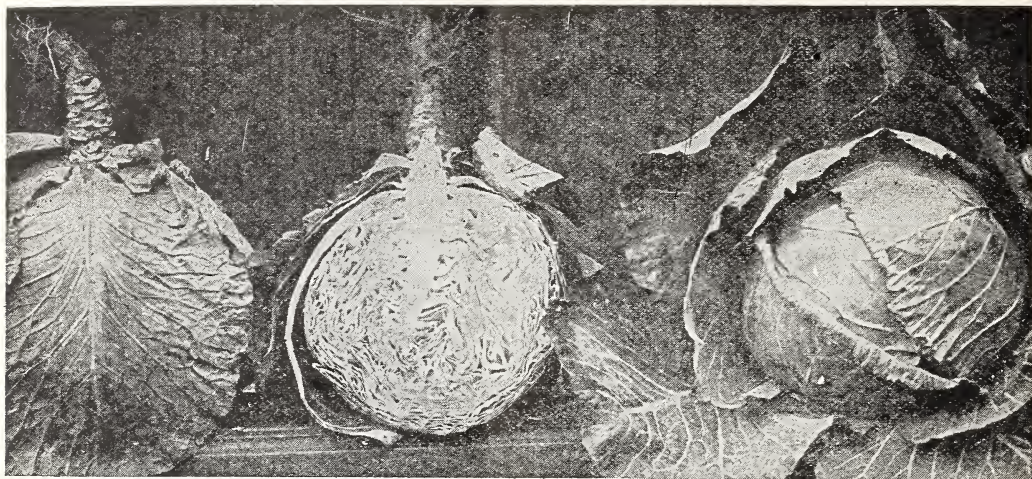
CABBAGE

(1 oz. will produce 4000 plants)

Culture—Cabbage requires a rich, moist, heavy soil, and deep and frequent cultivation. For extra early use the seed may be sown in the fall during September, and young plants protected through the winter in cold frames, or sow the seed during January or February, very thinly and shallow in hot-beds. When the young plants have reached sufficient size, gradually harden them off by admitting air freely. Transplant to the open ground as soon as the ground works up well. Plant one by two feet and cultivate every two weeks. For late use sow the seed in fine soil during May or June. Sow the seed very thinly and not over one-fourth inch deep. Another easy method is to plant five or six seeds in a hill then pull out all but the strongest plant. When insects appear dust with Slug Shot or similar preparation.



Cabbage, Early Flat Dutch



Cabbage, Copenhagen Market

CABBAGE

Extra Early Sorts

Early Jersey Wakefield—The best extra early variety; heads solid and of excellent quality. The standard early market garden variety. Pointed head.

Charleston or Large Wakefield—Only a few days later than the Jersey Wakefield; much larger and not so pointed. Uniformly large and solid. A great favorite with gardeners because of its large size and fine quality.

Early Winningstadt—An excellent variety for general use; very hardy and a sure header; the heads are hard, conical shape, and keep well summer or winter; it will succeed where most varieties would fail.

Early Spring—As early as the earliest. Fine, large, flat heads. It has a short stem and but few outside leaves, admitting of very close planting, solid heads, or finest quality.

Copenhagen Market—The heaviest yielding and best quality cabbage that can be grown. A tremendous yield of smooth, round, even sized heads, valuable for either early or main crop use, and with wonderful hardiness and vitality. A result of the highly developed Danish system of breeding. The plant is short stemmed and compact, leaves medium light green, thick and smooth, heads average about ten pounds.

Second Early or Summer Sorts

Allhead Early—Fully one-third larger than any other early sort. The deep, flat heads are remarkably solid and uniform in shape, size and color; compact and of very best quality.

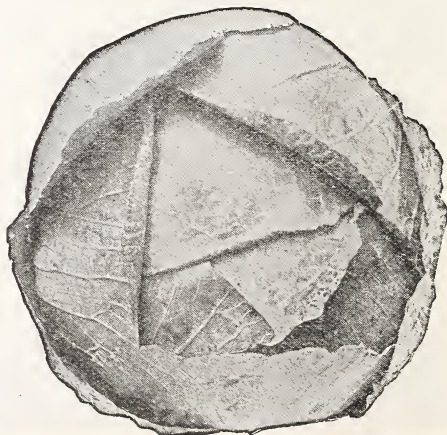
All Seasons—An excellent summer cabbage for general cultivation. Very popular in the eastern markets; stands dry weather and the hot suns to a remarkable degree. Extra large, round, solid heads of first-class quality; good keeper.

Early Flat Dutch—This well known and popular variety is considered by many to be the best second early sort; large, flat, solid heads of excellent quality; does not burst easily.

Late or Winter Varieties

Premium Flat Dutch—The standard variety, a sure header and a good keeper. Many gardeners depend entirely on this variety for winter cabbage.

Sure Head—A popular sort for main crop. It never fails to form uniformly large, solid heads, which are tender and of fine sweet flavor.



Cabbage, Danish Ballhead

Danish Ball Head—Hard and solid as a rock; stands cold and drouth that would destroy other sorts. The best variety to keep over winter for spring sales.

Large Late Drumhead—Enormous heads, solid and of good quality.

Prices: $\frac{1}{2}$ -oz., 15c; oz., 25c; $\frac{1}{4}$ -lb., 75c; except Copenhagen Market and Danish

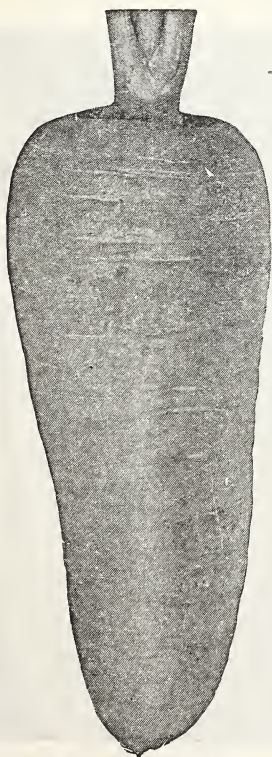
Ball Head: $\frac{1}{2}$ -oz., 20c; oz., 30c; $\frac{1}{4}$ -lb., \$1.00.

CARROT

(1 oz. will sow 100 ft. of drill;
3 to 4 lbs. per acre)

Culture—The carrot will do well in any good, well-worked soil. For early use, sow the seed when the apple is in bloom, in rows fifteen inches apart, and when two inches high thin out so that the plants stand four inches apart in the row. For fall and winter use sow the seed from the 1st to the 15th of June. The roots may be stored in cellar or pit, covered with dry sand, where they will keep solid until late in the spring.

Long Orange—An old standard for general use. A sure and heavy cropper. Roots long, tapering and of deep orange color.



Carrot, Danvers' Half Long



Carrot, Early Oxheart

Early Scarlet Horn—A small, extra early sort suitable for forcing or first early planting out of doors. They grow to length of about two inches and almost as thick. When young quite tender and fine grained.

Danver's Half Long—Very productive and will thrive in all classes of soil. Deep orange color, first-class keeper. Best quality.

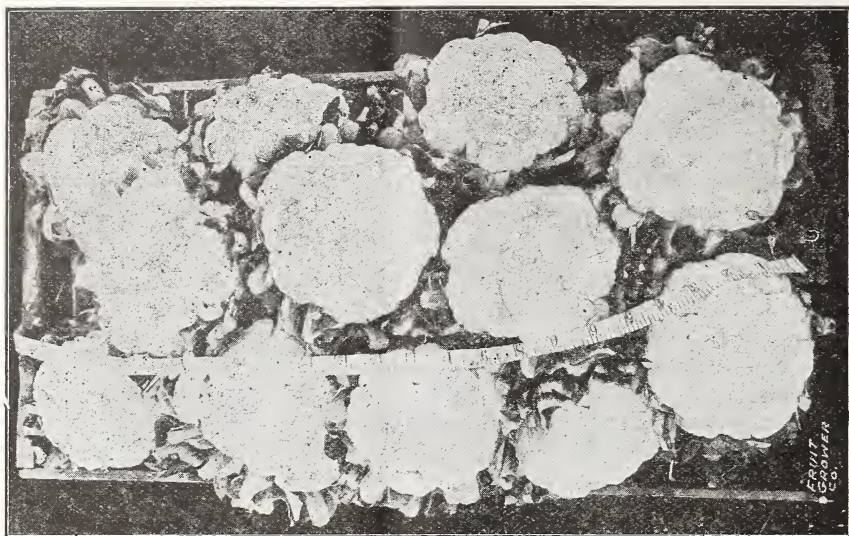
Oxheart or Guerande—Roots short but very thick, smooth and handsome; flesh fine grained, tender and sweet. A fine variety for early market, color orange yellow.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.

CORN SALAD

Large Leaved—Also called Feticus or Lamb's Lettuce. A small, refreshing salad, used as a substitute for lettuce during the winter and spring months. For winter months sow shallow in rows, one foot apart, during August or September. When winter approaches, put on a very light covering of hay or straw. The plants are hardy and will remain green and fit for use all winter. The seed may also be sown early in spring.

Prices: Oz., 15c; $\frac{1}{4}$ -lb., 40c.



Cauliflower, Early Snowball

CAULIFLOWER

FINE DANISH GROWN STOCK

(1 oz. of seed will produce 3000 plants)

Culture—The cauliflower requires cool, moist weather for its development; it will not head in hot weather. Sow in hot-bed very early during January or February. Transplant into deep, rich, moist, well worked soil as soon as frost ceases, one foot apart in rows two feet apart. Cultivate very frequently. They should be kept growing rapidly. When the flower begins to form draw the leaves over and pin or tie them together to protect the heads from the sun. For autumn use sow in June.

Early Snowball—The best variety for general use. Of dwarf habit, and produces fine, large, white heads in a very short time. Always tender and sweet.

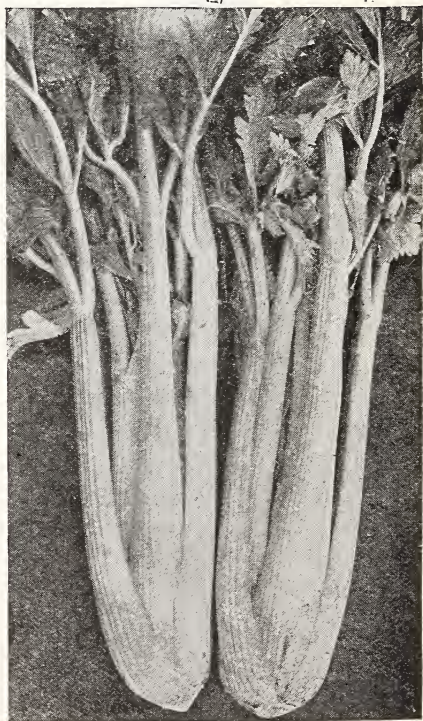
Extra Early Paris—Very early and reliable header. A large white solid head, of excellent flavor, favorite with market gardeners because of its earliness and large size.

CELERY

(1 oz. of seed will produce 6000 plants)

Culture—Sow thinly and cover very lightly; a little sprinkling of earth is all that is necessary. Select a moist place and water if the bed becomes dry. When the plants have reached a height of about four inches, lay off shallow trenches about two feet apart and set out portion of the plants in good, rich, well manured soil, ten inches apart, cutting off the tops. Water during

dry weather and keep them growing. Hoe frequently and gradually draw the soil up about the plants as they grow.



Celery, White Plume

Golden Self-Blanching—The standard and best early sort. Of dwarf, compact habit, with thick solid stalks which blanch easily to a clear, waxy yellow. Stalks crisp, free from stringiness and of delicious flavor. Our stock of seed is the finest obtainable.

White Plume—A well known sort; early, handsome and blanches easily.

Giant Pascal—The very best keeper. When blanched it is of a beautiful yellowish white; crisp, solid, and of a delicious, nutty flavor.

Celeriac or Turnip Rooted Celery—Giant Prague—For seasoning and garnishing.

Prices: Oz., 40c; $\frac{1}{4}$ -lb., \$1.25. **Golden Self-Blanching:** oz., 50c; $\frac{1}{4}$ -lb., \$1.75.

CRESS, or PEPPER GRASS

Dwarf Fine Curled—A small pungent salad of easiest culture. The seed should be sown early, in rows about fifteen inches apart and covered lightly; when two or three inches high it is ready for use. It is often mixed with lettuce and imparts a warm, agreeable taste to the salad.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.

SWEET CORN

(1 qt. of seed to 300 ft. of row.
8 to 10 qts. per acre)

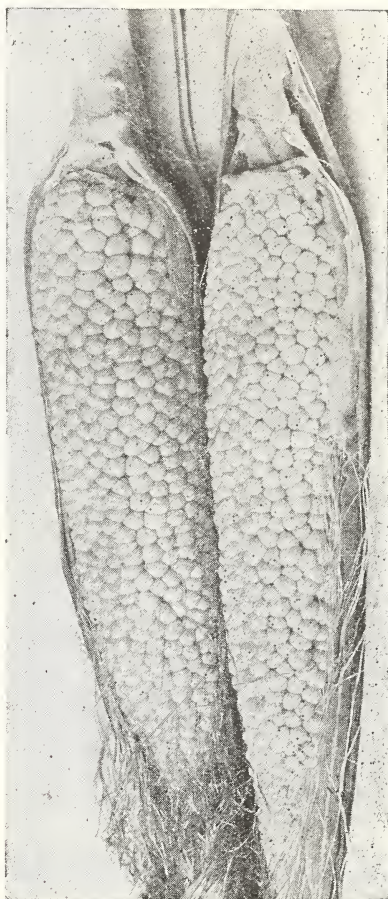
Culture—Beginning with **Extra Early Adams** as soon as danger from frost is over, small plantings should be made every week to provide a constant supply of sweet, tender ears. The early sorts may be planted up to within eight weeks of frost. **Early Minnesota**, **Mammoth White Cory**, etc., are early sorts. For main crop **Stowell's Evergreen** is the standard and best paying sort. **Country Gentleman** is exceedingly sweet and fine flavored. **Late Mammoth** is the largest and latest of all.

Early Evergreen—It is earlier than **Stowell's** by considerable, resembles it very closely in size and shape, has the same fine, sweet flavor, and besides is more uniform and remains in condition fit for use longer.

Country Gentleman—Certainly a fine sort. Ears average nine or ten inches in length, but what it lacks in size is more than equaled in superior quality and productiveness. It sometimes yields as many as five or six ears to the stalk. Deep grained and exceedingly sweet and juicy.

Extra Early Adams—While not properly a sweet corn, it is used as such because of its very early and hardy nature. Market gardeners depend on this sort for their first "roasting ears." It can be planted long before it is safe to plant other varieties.

Mammoth White Cory—A new extra early variety and a great improvement on the old Cory. The ears are handsome, even, broad grained and very large for such an early sort. They are borne two or three on a stalk.



Corn, Country Gentleman

Early Minnesota—An old favorite. One of the best early varieties.

Early Champion—The earliest large sweet corn. Produces ears a foot long in two months. Yields two and three ears to the stalk. Very sweet and juicy.

Stowell's Evergreen—The standard main crop variety. Large well formed ears, deep grained, very sweet and sugary. It is hardy and productive and altogether the best kind for general use.

Black Mexican—One of the sweetest and most delicious of the sugar corns. Of quick maturity.

Golden Bantam—Very sweet and luscious. It is very hardy, which permits of early planting. The stalks average about 3 feet in height; the ears are 5 to 7 inches in length; the grain is a rich, golden yellow. Unrivalled in quality.

Prices: $\frac{1}{2}$ -lb., 10c; lb., 20c; except **Country Gentleman**, **Golden Bantam** and **Black Mexican:** $\frac{1}{2}$ -lb., 15c; lb., 25c.



Cucumber, Improved Long Green

CUCUMBER

(1 oz. will plant 50 hills; 2 lbs. per acre)

Culture—Newly-broken prairie or rich sandy bottom is the soil best suited for cucumbers. The first planting out of doors may be made in a sunny situation at about the time cherry trees are in bloom. Plant in hills 4x4 feet, dropping five or six seeds in a hill. For main crop sow the seed thickly in rows four to five feet apart at corn-planting time. For pickles plant in middle summer.

Boston Pickle or Green Prolific—A favorite pickling sort and very productive. A dark green, crisp and tender.

Improved White Spine—An excellent variety for slicing. Is early and prolific, handsome and straight dark green fruits. Flesh tender and of the highest quality.

Early Cluster—The short, thick fruit is produced in clusters close to the stem. Early and productive.

Improved Long Green—We have a greatly improved strain that grows 10 to 12 inches long, and makes the best of pickles when young; the full-sized fruits are best for sweet pickles and slicing. Dark green in color; firm and crisp; quality excellent. The vines are vigorous and produce fruits in great abundance.

Davis Perfect—One of the greatest cucumbers introduced in many years. Of the Long White Spine type. It has grown so in popularity that it is regarded as the leader of its type. This long dark green sort produces wonderfully, besides resisting the blight better than most varieties.

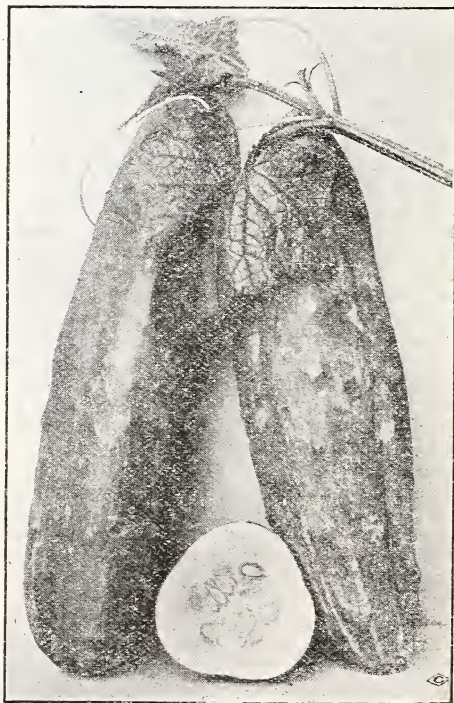
Prices: Oz., 10c; ¼-lb., 35c.

COLLARDS

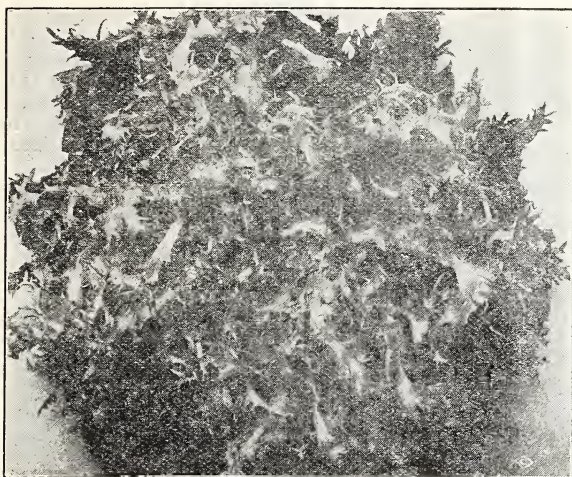
A plant resembling Kale or a large loose headed, leafy cabbage, extensively used as greens. It is cultivated in the same way as cabbage; set out in rows when a few inches high.

Southern Giant—The best sort.

Prices: Oz., 15c; ¼-lb., 50c.



Cucumber, Improved White Spine



ENDIVE

(1 oz. to 300 ft. of row)

Culture—Sow the seed in the open ground when the earth is free from frost; for a succession, sow any time up until the first of August. When the plants are large enough thin out to ten inches apart. When the outside leaves have reached a length of about six inches, they are ready for blanching; select a dry day for this work; bring the outside leaves together over the top of the plant and tie them up closely to prevent rain from coming through.

Green Curled—A very large variety; leaves deep green, beautifully curled and of fine flavor.

White Curled—Leaves light green and blanches easily to a clear waxy white, finely cut and curled.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 35c.

KALE OR BORECOLE

(1 oz. will produce 4000 plants)

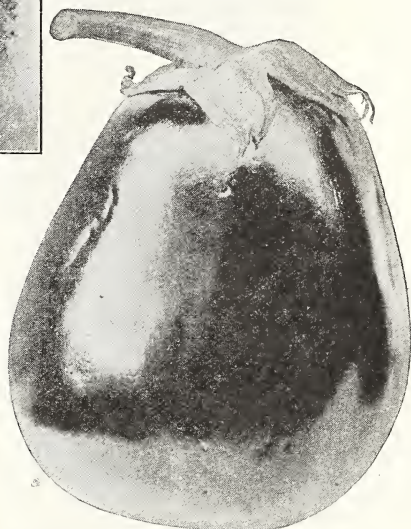
Culture—In early spring sow the seed in rows two feet apart and thin out to six inches between the plants. For fall and winter use sow early in September. The quality is much improved by freezing and the plants may be gathered any time during the winter.



Dwarf Curled—Of half dwarf, compact bushy growth; a vast improvement over the straggling tall-growing varieties. The leaves are large, of handsome light green color, curled densely.

Tall Curled—A valuable sort, which furnishes an abundance of "greens" equal to the best spinach during the fall and winter. Beautifully curled, crimped and of fine flavor.

Prices: Oz., 15c; $\frac{1}{4}$ -lb. 50c



Egg Plant, Black Beauty

EGG PLANT

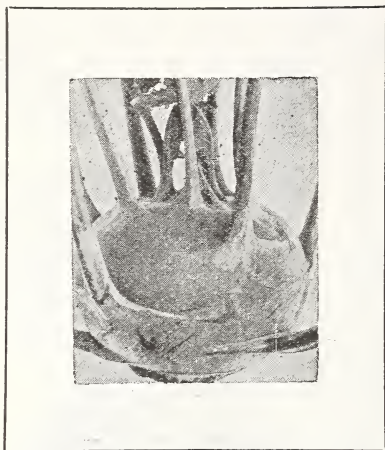
(1 oz. will produce 1500 plants)

Culture—The seed of the Egg Plant is very difficult to germinate; repeated sowings are often necessary. The seed requires heat and should be sown early in the spring under glass in a hot bed. After all danger of frost is past and the ground has become thoroughly warm, transplant in the open. The soil should be thoroughly enriched with well rotted manure.

Black Beauty—The earliest of all large-fruited Egg Plant, ten days to two weeks earlier than the New York Purple. The color is a rich shiny purplish black. It is entirely free from spines.

New York Purple Improved—The standard and by far the best variety for home or market. It is of large size, very productive, and of a rich purple color.

Prices: Oz. 60c; $\frac{1}{4}$ -lb., \$2.25.



Kohl Rabi, Early White Vienna

KOHL RABI

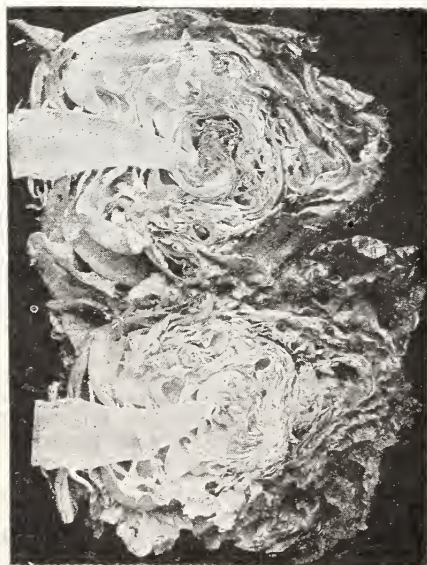
(1 oz. will produce 3000 plants)

Culture—Kohl Rabi requires exactly the same treatment as cabbage. For early use sow the seed thinly in hot-bed and transplant to open ground when frost has left the soil. The bulbs should be used before they reach their full size and while the skin is still tender.

Early White Vienna—Very early; small tops and of a fine delicate flavor.

Early Purple Vienna—Identical with the above except color, which in this sort is a rich purple.

Prices; Oz., 20c; ¼-lb., 60c.



Lettuce, Hanson

LEEK

Culture—Sow the seed early in the spring, in rows where they are to remain and thin out to four inches apart. Keep well hoed during the summer, gradually drawing the soil up about the plants to blanch them. The flavor is improved by freezing.

Monstrous Carentan—A giant variety, often three inches in diameter. Very white and tender.

Prices; Oz., 20c; ¼-lb., 60c.



Leek, Monstrous Carentan

LETTUCE

(1 oz. will produce 1000 plants)

Culture—For early crops, seed may be sown the previous autumn and plants protected through the winter in cold frames. Or, may be sown in hot-beds in February and transplanted to the open ground as soon as ground can be worked. For ordinary private use the simplest way is to sow in the open ground early in spring. Head Lettuce should be transplanted and hoed frequently to reach full development quickly.

Grand Rapids Forcing—A favorite sort for growing in hot-beds or green houses and a fine sort, also for out-door sowing. It grows very rapidly, forming large, loose-curling bunches. The coloring is yellowish



Lettuce, Grand Rapids

green. The leaves are crisp, tender, fine flavored.

Prize Head—We highly recommend this sort for the family garden. It is early, of fine quality and remains fit for use a long time before running to seed. It does not head up solid, but forms large loose bunches. The leaves are nicely curled and very tender and sweet; bright green in color, edged with brownish red.

Simpson's Black Seeded—Forms large, loose, beautiful heads of light yellowish green color; very tender and of best quality. A fine variety for forcing, and stands the heat of summer well.

Early Curled Simpson—A leading early sort; does not head, but forms a compact mass

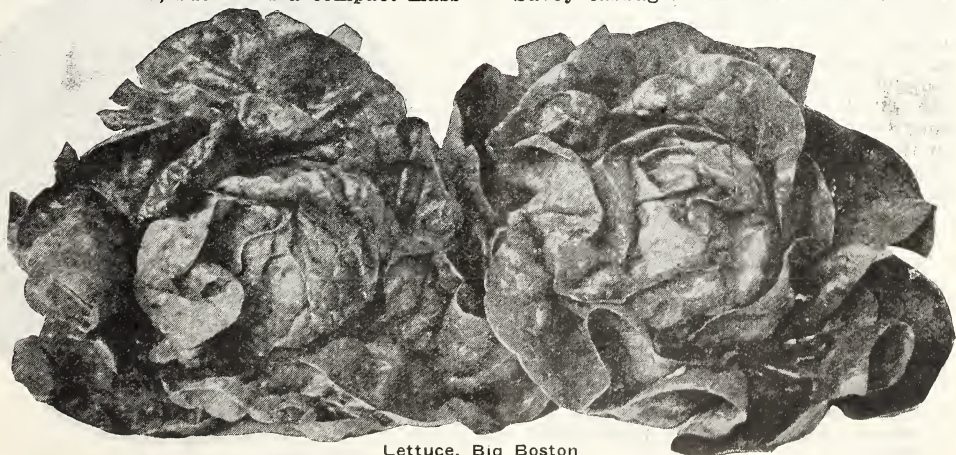
of curly leaves of yellowish green. Matures early; generally grown as an early crop. Very tender and crisp.

Heading Sorts

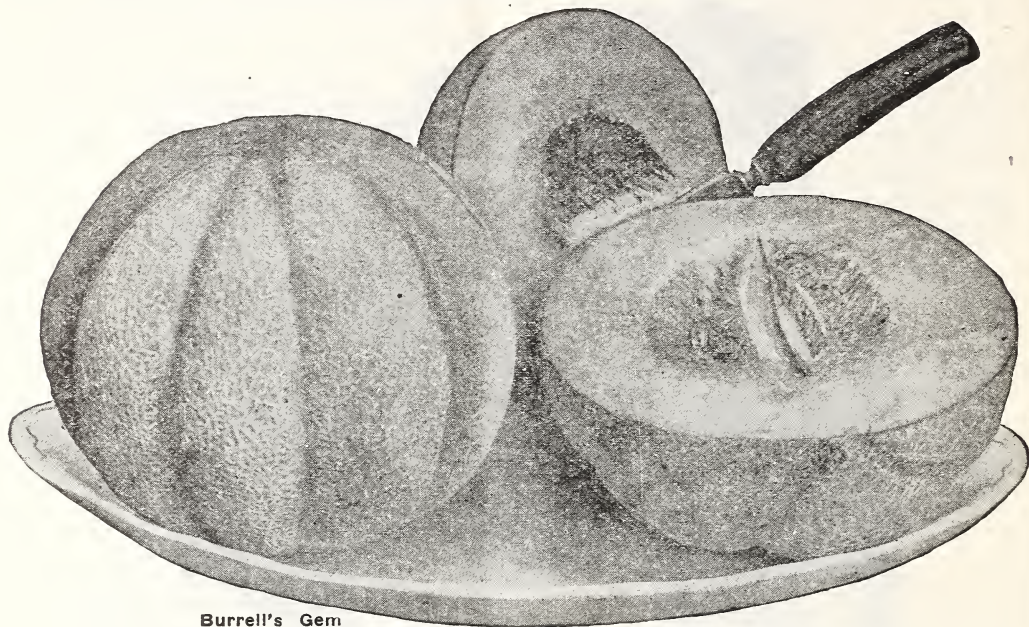
Hanson—One of the best of all varieties; forms a large, flat, solid head, the inner leaves blanching to a beautiful white. Always crisp and tender, even in the hottest weather of summer.

Big Boston—Excellent for forcing or outdoor culture; very hardy and vigorous; large heads of a beautiful shade of green.

Denver Market—Large, solid heads; the leaves are crimped and blistered like a Savoy cabbage. An excellent sort.



Lettuce, Big Boston



Burrell's Gem

LETTUCE

May King—The heads of "May King" are uniformly large, of globular shape, hard and solid. The leaves are light green, with delicate ribs, the inner leaves are of a clear yellow color, very tender and of fine mild flavor. It will prove an indispensable sort for both the private garden or for market.

Prices: Oz., 10c; ¼-lb., 35c.

MUSKMELONS

(1 oz. to 50 hills, 2 to 3 lbs. per acre)

Culture—Musk Melons do best on newly broken sod or prairie land, or on soil prepared by plowing under a crop of rye or wheat in the spring. The seed should not be planted until the soil has become thoroughly warmed. Plant five or six seeds to the hill, in hills four to six feet apart. Rich soil or well rotted manure should be used in the hills. When the plants are of sufficient size thin out to three vines to the hill.

Honey Dew—The smooth thin skin is creamy white when ripe and so tough that the melon is practically sealed up and will keep for a month or more. Allow it 3 months to mature, pull when the blossom end is slightly soft, and keep a few days before serving. The flesh is good right up to the rind.

Large Hackensack—An excellent extra large green-fleshed melon. Fruits round, somewhat flattened, ribs large and densely netted. Flesh is green, thick, juicy and sweet.

Rocky Ford—Of a handsome, oval shape and of a convenient size for packing in boxes or crates. The flesh is thick and of a light green color; deliciously sweet and fine flavored. It is, without doubt, the most popular melon grown.

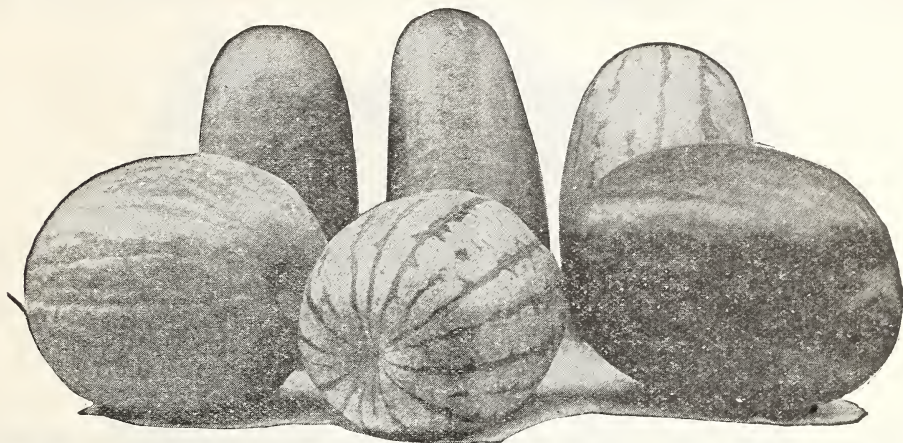
Banana—A very long melon of easy culture. The flesh rather coarse grained, but of good flavor; light orange in color.

Large Yellow Cantaloupe—A large variety, deeply ribbed; flesh thick and of a light salmon color.

Osage—A fine, yellow fleshed variety of good size, the flesh is very thick and of a



Muskmelon, Extra Early Hackensack



beautiful salmon color; very sweet and melting.

Netted Gem—One of the earliest and one of the most profitable small basket melons. Very uniform of desirable shape and size. Flesh light green and of very fine flavor.

Burrell Gem—It has a tough, thin rind, and the blossom end is protected with a well developed button. Meat is of a reddish orange, very thick, fine grained and spicy, not containing too much water or acid. Seed cavity small and triangular.

Extra Early Hackensack—A selection from the old Hackensack, but is about ten days earlier. The melons are of good size and flavor.

Prices: Oz., 10c; ¼-lb., 35c.

WATERMELONS

(1 oz. to 30 hills, 4 to 5 lbs. per acre)

Culture—Watermelons do best on newly-broken sod or prairie land, or on soil prepared by plowing under a crop of wheat or rye in the spring. The seed should not be planted until the soil has become thoroughly warmed, about corn planting time. Plant five or six seeds in hills eight or ten feet apart each way. The soil in the hills should be made very rich by mixing in a few shovelfuls of well rotted manure. When the plants are well established, thin out to one or two strong plants. When insects molest the vines dust with Slug Shot, or similar preparation.

Tom Watson—The most popular melon in the South. Its shape is similar to the Kleckley Sweet, but the color is a lighter green. Its great merit is in its earliness, good flavor, thin rind, and good keeping qualities, making it one of the best of shippers.

Halbert Honey—A new exceedingly sweet and deliciously flavored melon, similar in size and shape to Kleckley's Sweets. It is of handsome, long, oval shape. The skin is an attractive, very dark green; the flesh is of a beautiful bright red, extending

almost to the outer rind, is very tender and melting, and entirely free from stringiness.

Kolb's Gem—The old popular market and shipping variety. It is still one of the leaders.

Irish Grey—A distinct and valuable new variety producing more good merchantable melons under the same conditions than any other variety; the eating quality is unbeatable. The sparkling red flesh is very sweet and entirely free from stringiness. The size is uniformly large, color of rind yellowish grey and almost as tough as the Citron, earlier than the Watson, and will keep in good condition a long time after picking. Stands long distance shipping well.

Florida Favorite—Oblong; striped; early. Sweet and fine flavored.

Cuban Queen—An old favorite. A good shipper. Has bright red flesh.

Alabama Sweets—A valuable shipping melon. Its chief merit lies in its extreme earliness and delicious quality so rarely found in an early shipping melon. They sell readily at good prices. Shape long, of good size, uniformly striped light and dark green; very sweet and luscious.

Phinney's Early—The earliest variety. Small, but very hardy. Bright red flesh.

Sweetheart—They are easily distinguished by their beautiful mottled light green skin. The rind is very thin but tough and leathery, making it an excellent sort for shipping. Flesh bright red; very sweet, sugary; large size.



Watermelon, Tom Watson



Kleckley's Sweet

Ice Cream—Medium size; oblong shape; thin rind and bright red flesh; sweet and luscious. Excellent for home or market.

Gypsy, or Georgia Rattlesnake—A very large melon and a good shipper. The skin is striped light and dark green. The flesh is bright scarlet, deliciously sweet and sugary. The variety is very popular in the South for shipping.

Kleckley's Sweet—One of the finest melons for home use in cultivation. It is of medium size and oblong shape. The skin is a handsome dark green. The bright red flesh is exceedingly sweet and melting. The rind is so thin that there is practically no waste.

Prices: Oz., 10c; $\frac{1}{4}$ lb., 30c; lb., \$1.00.

Irish Grey, lb., \$1.25.

MUSTARD

(1 ounce to 100 ft. of drill)

Culture—Mustard should be sown on good rich soil, so as to cause a quick, tender growth. As soon as the ground can be worked, prepare the soil finely, and sow in rows about twelve inches apart. For succession, sow at any time during the spring.

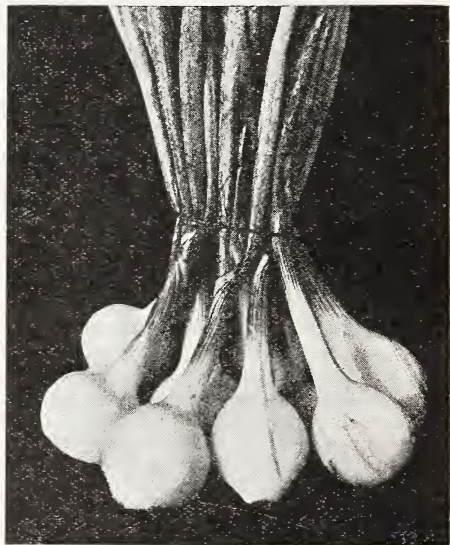
White or English—For salads or flavoring.

Ostrich Plume—An improved strain of Southern Giant Curled, but immensely superior to that sort, both in appearance and delicate flavor. The leaves are finely cut and densely curled.



Southern Giant Curled—The true curled leaf sort. Very popular in the South for sowing in the fall for early spring salads or greens.

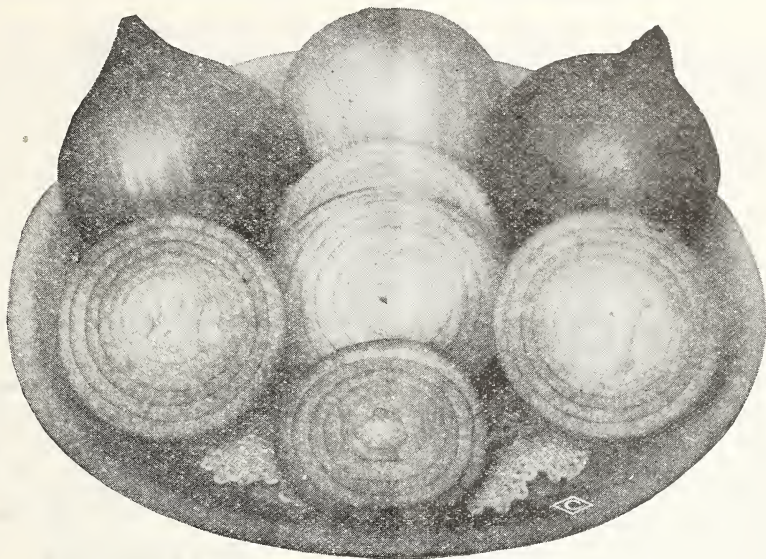
Prices: Oz., 10c; $\frac{1}{4}$ -lb., 30c.



ONIONS

(1 oz. to 200 ft. of drill. 4 to 5 lbs. per acre)

Culture—Any good soil will grow onions, but for the largest crops the soil must be heavily manured. Select a clean piece of ground, as free from weeds as possible. Very early in the spring plow or spade deeply and harrow or rake the surface fine. Sow the seed thinly in straight rows one foot apart, covering one-fourth inch deep and press the soil about the seeds with roller or back of spade. Hoe lightly as soon as up; keep free from weeds; when three inches high, thin out to two inches apart in the row.



Onion, Red Wethersfield

ONIONS

Red Sorts

Southport Red Globe—The Globe onions, because of their handsome shape, always bring a higher price on the market than the flat varieties. The Red Globe is of good size, a beautiful shining, dark red color and excellent flavor and keeping qualities. Those who grow onions for the market will find this a paying sort.

Large Red Wethersfield—This onion is still the leading red sort for main crop. It is grown more extensively in the West than any other variety. The bulbs are somewhat flat and under good cultivation will grow six inches in diameter. Enormously productive and a first class keeper.

Yellow Sorts

Prizetaker—The American Prizetaker grows uniform in size. It is of handsome globe shape. Skin a bright straw color. Of im-

mense size, often measuring eighteen inches in circumference. It ripens up well and remarkably mild and fine flavored; yields immense crops.

Danver's Yellow Globe—The standard yellow variety. Globe shape; color a light golden yellow. Flesh pure white and mild in flavor. A good yielder and keeper.

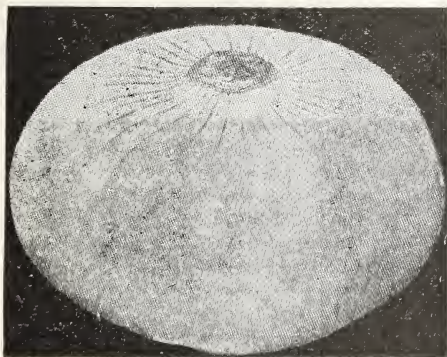
White Sorts

Southport White Globe—One of the most handsome onions grown. It is large, of fine globe shape, pure white color and mild flavor. An abundant yielder and excellent keeper.

Earliest White Queen—(Pickling). A beautiful, white skinned, little onion. Very early and of mild flavor. Just the right size for pickling.

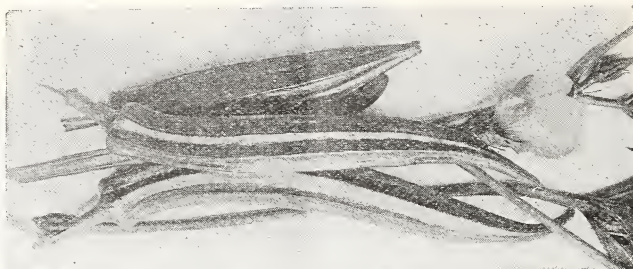
White Portugal or Silver Skin—An early, large, mild flavored onion; skin a beautiful silvery white; a good keeper.

Prices: Oz., 20c; ¼-lb., 65c; Except White Sorts, oz., 20c; ¼-lb., 75c.



Onion, White Portugal





Okra, Mammoth Green Pod

OKRA or GUMBO

(1 oz. to 100 ft. of drill)

Culture—The seed should not be planted until the ground has become well warmed, at about corn planting time. It will always rot if the soil is cold and damp. In late spring plant seed about four inches apart in rows two feet apart. When the plants come up thin out to a foot apart in the row. The pods should be used when young and tender.

Mammoth Green Pod—A dwarf variety. The long, slender, deep green pods are produced in great abundance.

Dwarf Green—A fine new sort of dwarf bushy growth, much better suited to the family garden than the tall, straggling sorts. The pods are short and thick and of best quality, being tender and fine flavored when young. Exceedingly productive.

White Velvet—Of tall growth; pods long, smooth, and of velvety color.

Prices: Oz., 10c; ¼-lb., 25c.

PARSNIPS

(½ oz. to 100 ft. of drill)

Culture—Parsnips germinate slowly. Sow the seed as early in the spring as possible, in any deep, rich soil. Dig or plow the soil deeply and sow the seed thickly in shallow drills or rows, covering it lightly. When the plants are two or three inches high thin out to four inches apart. Parsnips may be left in the ground all winter, the quality is improved by freezing; or they may be dug in the fall and stored in the cellar.

Long Smooth—A heavy cropper; very tender and sweet.

Hollow Crown—The finest strain of parsnip in existence. A uniform, smooth root, with thick shoulder, tapering gradually to a point. Roots are clean, white, straight, and free from small side roots. Very tender, sweet and fine flavored. An immense cropper and a perfect keeper.

Prices: Oz., 10c; ¼-lb., 30c.

PARSLEY

(½ oz. to 100 ft. of drill)

Culture—Parsley does best in good, rich, mellow soil. The seed germinates very slowly, often requiring four to five weeks before it comes up. Sow seed very early in spring, in rows one foot apart; sow thickly and shallow.

Emerald—Color intense dark green. Leaves densely curled and mossy. Makes a fine, large bush, very ornamental and attractive. Of rapid growth and the finest strain of parsley in cultivation.

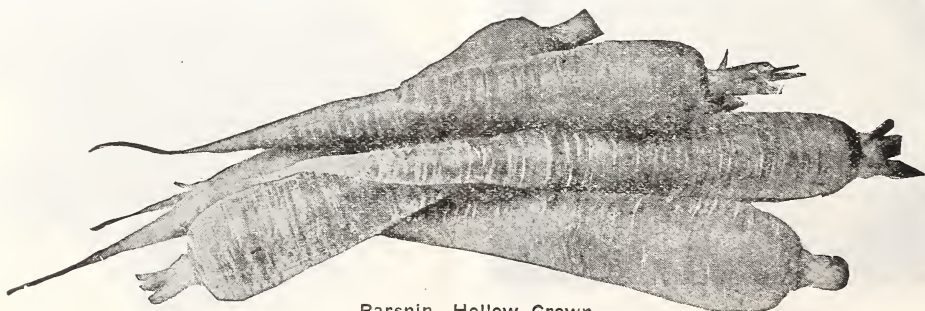
Dark Moss Curled—A beautiful sort; leaves very dark green and densely curled. Very productive and compact in growth.

Prices: Oz., 10c; ¼-lb., 30c.

PEAS

(1 qt. to 100 ft. of drill. 2-3 bu. per acre)

Culture—The hardy, round-seeded sorts, such as First and Best and Alaska may be planted the previous autumn or very early in the spring, as soon as it is possible to prepare the ground. Plant in rows three feet apart, scattering the seed about two inches apart in the row and cover it two



Parsnip, Hollow Crown

inches deep. The wrinkled sorts are more tender and should not be planted until the ground becomes warmer. Nott's Excelsior, American Wonder and Premium Gem are dwarf growing sorts requiring no support; they are early and can be planted closely and are recommended for the family garden. Telephone, Stratagem and Bliss' Everbearing are taller and later sorts, producing very broad pods and fine peas. Large White Marrowfat and Champion of England are larger sorts and grow about six feet high.

Extra Early Sorts

Seeds marked "W" are Wrinkled Peas.

"S" denotes Smooth, Round-Seeded Sorts.

First and Best—"S"—A very popular extra early pea; height 2½ feet; seed round, smooth, cream colored.

Alaska—"S"—As early as the earliest; the finest extra early pea known; pods of a rich, dark green color. It grows 2½ feet high and matures all the crop at once, making it a valuable variety for the market gardener.

Extra Early Wrinkled Peas

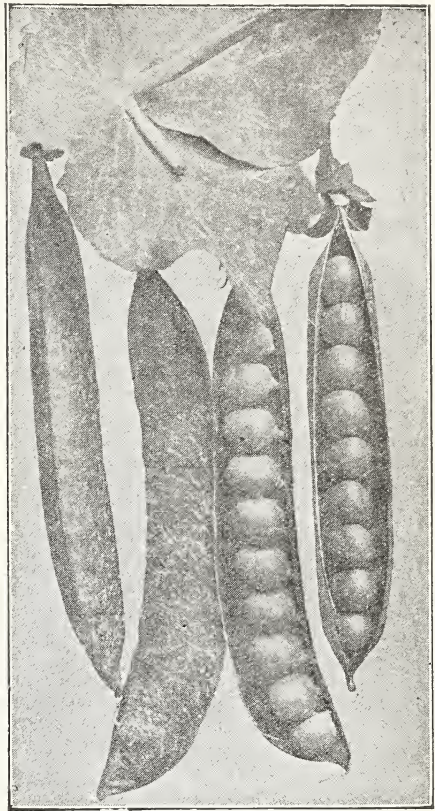
Dwarf Pea—"Sutton's Excelsior"—"W"—Its great merit lies in the fact that in this we have an early dwarf wrinkled pea in the front rank for earliness, with much larger and handsomer pods than any dwarf early wrinkled pea yet introduced. Pods long, broad, straight. Height twelve inches.

Gradus—"W"—As early as the extra earlies and immense pods and double the size of First and Best. The pods are well shaped and filled with large, luscious peas of the very finest quality; height three feet.

Little Marvel—Particularly well suited to home gardens. A first early; 15 inches high, heavily set with large dark pods, usually in pairs, that are closely crowded with 6 to 8 green peas of extra-fine flavor.

Early Dwarf Sorts

Carter's Premium Gem—"W"—A deservedly popular dwarf growing sort, growing about fourteen inches high. It is hardier and can be planted earlier than most wrinkled peas; very prolific. The pods are large and contain six to nine peas of first class quality.



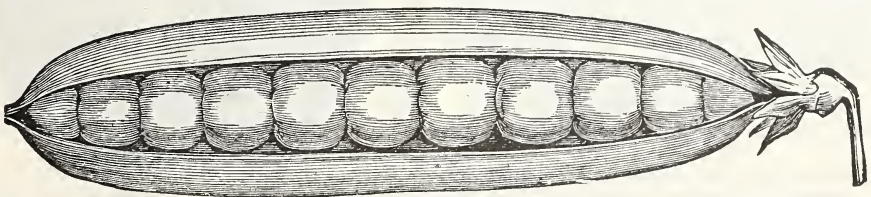
Peas, First and Best

Nott's Excelsior—"W"—The best dwarf variety for the home garden. Grows a foot high and is wonderfully productive. The peas are tender and of delicate flavor. An excellent sort, growing more in popular favor every year.

American Wonder—"W"—A desirable dwarf variety growing only nine inches high; very early. Peas are wrinkled, very sweet and high flavored.

Medium and Late Sorts

Telephone—"W"—Height 3½ feet; vines and leaves large and coarse. The extra large light green pods are produced in the greatest profusion and are filled with im-



Peas, Sutton's Excelsior

Peas—Continued

mense peas which are sweet, tender and of delicious flavor.

Large White Marrowfat—"S"—A good summer pea. Grows five feet high, is productive and of fair quality.

Bliss' Everbearing—"W"—A second early sort, continuing a long time in bearing. Vines vigorous and branching and grow about two feet high.

Melting Sugar—"S"—(Edible Pod.) In this variety, which is the best of its class, the entire pod is cooked in the same way as string beans. The pods are of large size, flat, very tender and brittle, and fine flavored when cooked; the vines attain a height of four feet and are very productive.

Champion of England—"W"—An old and favorite sort with all those who are fond of a large, tender, luscious pea, reaching a height of four or five feet and is fairly productive.

Prices: $\frac{1}{2}$ -lb., 20c; 1-lb., 35c; except Alaska, First and Best and Marrowfat, $\frac{1}{2}$ -lb., 15c; 1-lb., 30c.

PEPPERS

(1 oz. will produce 1000 plants)

Culture—Pepper seed requires heat for germination. The seed should be sown early in hot beds or small boxes in the window, or may be sown in the open ground about the middle of spring. When two inches high set in rich soil two feet apart in rows two and one-half feet apart. Hoe often. The yield can be greatly increased by hoeing manure from the hen house into the soil about the plants when they are about six inches high.

Ruby King—A mild flavored pepper of large size, from four to six inches long by three and one-half to four inches thick; the plant is sturdy, bushy habit, and each produces from six to twelve large handsome fruits; when ripe they are of a beautiful, bright ruby red color and always remarkably mild and pleasant.

Small Chili—A very short heavy-set bush, almost a solid cluster of small peppers of 2 inches in length.

Long Red Cayenne—A long slender red pepper, very hot and pungent.

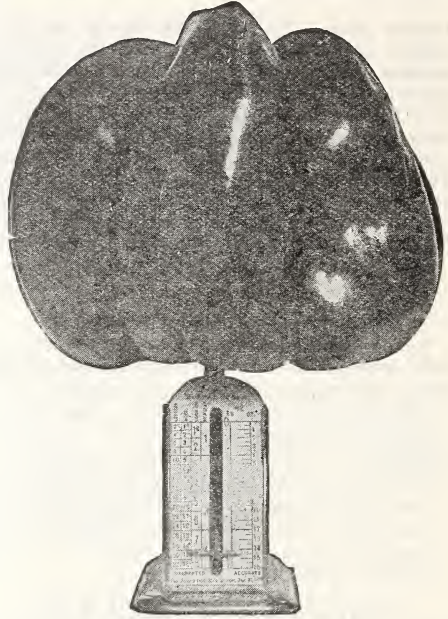
Sweet Mountain—A strong grower and very productive. The young peppers are of a bright green color, turning to a rich red when ripe. Very large, sweet and mild.

Bell or Bull Nose—A very large and mild glossy red variety.

Chinese Giant

Monstrous New Pepper. Fully twice the size of Ruby King.

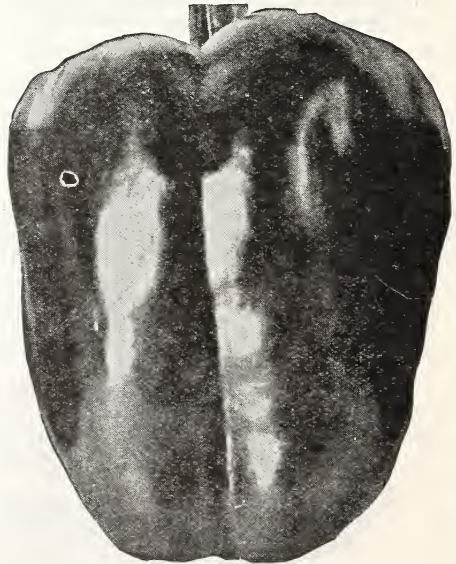
This splendid new pepper has created quite a sensation among gardeners who have



Pepper, Bell or Bullnose

grown it for market. It is the earliest, largest and best of all the large red peppers grown—fully double the size of Ruby King, which has heretofore been the leading sort. Its enormous size, beautiful shining red color and mild flavor causes it to sell readily, and gardeners will find it the most profitable sort that can be handled.

Prices: Oz., 50c; $\frac{1}{4}$ -lb., \$1.75; except Chinese Giant, Oz., 60c; $\frac{1}{4}$ -lb., \$2.00.



Pepper, Ruby King



PUMPKINS

(2 lbs. will plant 100 hills; 3 to 4 lbs. per acre)

Culture—The pumpkin does best on newly broken sod or prairie land, or on land formed by plowing under a crop of rye or wheat in the spring, but will do well on almost any soil. The seed is usually planted among corn in hills 8x8 feet. Plant any time during May. When the frost has killed the vines cut off the stems a few inches from the fruit and store in a dry place, using care not to bruise them in handling.

Connecticut Field—The common yellow variety. Very prolific.

Large Cheese—A large, flat sort, productive and of good quality.

Tennessee Sweet Potato—Medium sized, pear-shaped, striped white and green; thick flesh and of good flavor.

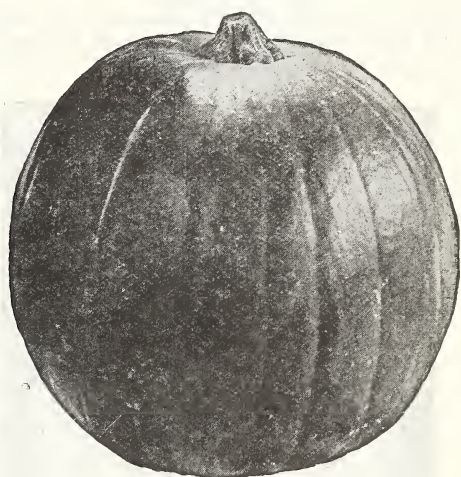
King of the Mammoth—This is a giant among pumpkins, often reaching a weight of over a hundred pounds. The skin is salmon colored, flesh bright yellow and fine grained and good quality.

Quaker Pie—Oval in shape, tapering to the stem end; flesh and skin of a creamy yellow color; fine for pies, being fine grained and rich flavored.

Cushaw or Crookneck—This excellent pumpkin ought to be planted more largely. It is the heaviest pumpkin for its size because of the small seed cavity. It is excellent for pies, and yields enormously.

Sugar or Pie—Not a large pumpkin but one of the sweetest and best for pies. It is fine-grained, deliciously sweet and a good keeper; flesh rich, deep, orange-yellow in color.

Prices: Oz., 10c; $\frac{1}{4}$ -lb., 25c; except Cushaw and King of Mammoth, Oz., 10c; $\frac{1}{4}$ -lb., 35c.



King of the Mammoth



Pumpkin, Sugar or Pie

Radish, Early Scarlet
Turnip White Tip



RADISH

(1 oz. to 100 ft. of drill)

EXTRA EARLY SORTS—Suitable for Forcing in Hot-Beds or Early Sowing Outdoors
Culture—For early use the seed may be



Radish, Icicle

sown in hot-beds in light sandy soil. The first sowing out of doors should be made as early as the ground is fit to work. For a constant supply sow every ten days until the middle of summer. Seed may be sown broadcast or in rows. The tenderness of the radish depends on a quick, continuous growth. A rich sandy soil is best. For extra early use, sow the small round sorts, follow with the half-long and long varieties, and for summer use the later sorts. White Strasbourg is best as it does not become tough and pithy so easily during the hot weather.

Icicle—The earliest long sort. Although a long radish of good size, it becomes fit for use almost as early as the small round sorts. The roots are straight, smooth and pure white in color. The flesh is almost transparent and brittle as glass.

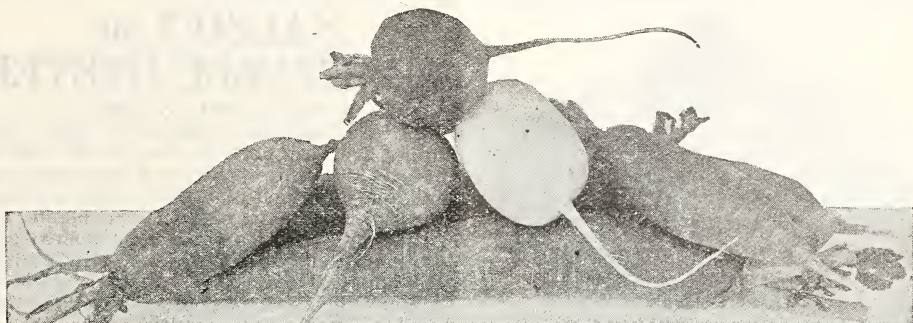
Early Scarlet Turnip White Tipped—This sort in shape and size closely resembles the Early Scarlet Turnip, but is a little earlier and of more attractive appearance. Color handsome bright scarlet, with white tips.

Crimson Giant—A variety extraordinary, in that, while growing to an unusually large size, it is always tender, crisp and of mild flavor. It remains in perfect condition a remarkably long time, and unlike other forcing varieties, does not become pithy, even when very large; color a beautiful crimson-carmine, flesh firm, crisp and tender.

Early Long Scarlet Short Top—The standard long red variety. Early and of excellent quality.

French Breakfast—An old favorite of rapid growth with small tops; crisp and tender; color a bright red with white tip.

Long White Vienna or Lady Finger—An early summer radish which is becoming very popular. The long white smooth roots are of about the same shape and length as the Long Scarlet, and always brittle and mild flavored. An excellent sort.



RADISH

Extra Early Sorts

Early White Turnip Forcing—The earliest white radish in cultivation. Good sized radishes can be pulled in twenty days after sowing the seed. Of fine round shape, flesh and skin pure white.

Early Red or Scarlet Turnip—No radish is more popular for the home garden. A quick growing, round red radish, with small tops; rich red color; crisp and tender. Fine for early outdoor planting.

Long Brightest Scarlet—Undoubtedly the brightest and most attractive long radish grown. Is very early and quick growing. The color is a rich red, while the tops are pure white; flesh white and very tender.

Later Sorts

White Strasburg—One of the best of all the summer radishes. Of good quality at all stages of its growth, when fully grown the roots are about five inches long and very thick at the shoulder. It never becomes tough or pithy, even in the hottest weather.

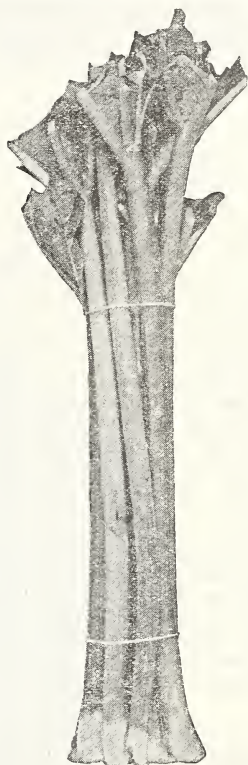
Early White Summer Turnip—An exceedingly tender round white radish. It remains fit for use a long time. Especially valuable for summer sowing.

Chartier—A fine American variety; excellent for summer use. The roots are about an inch in diameter and six inches long. Color a bright red. Shading to white tip; flesh remarkably crisp and mild.

Winter Sorts

Black Spanish—A late and hardy variety of large size. Skin a very brown or black. Keeps well during the winter.

Rose China Winter—Of excellent quality; a good keeper. Skin a bright rose color; flesh very crisp and brittle.



Rhubarb

Chinese White or Celestial—Often grows fifteen inches long and five inches in diameter. The skin is pure white and the flesh is crisp, tender and mild.

Prices: Oz., 10c; ¼-lb., 35c.

RHUBARB

(1 oz. will produce 800 plants)

Sow in drills 1 foot apart, thinning out to about the same distance apart in the rows when a few inches high. Transplant into deep, rich soil in fall or the following spring, about three feet apart each way.

Prices: Oz., 10c; ¼-lb., 35c.



Spinach, Bloomsdale

SPINACH

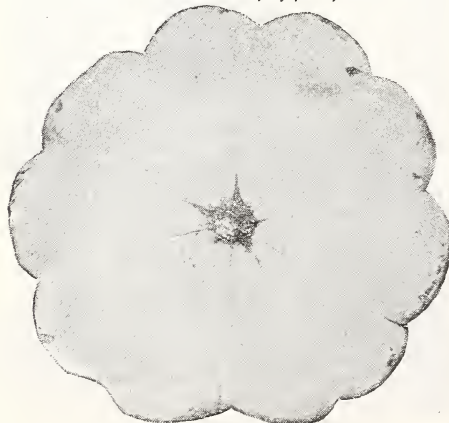
(1 oz. of seed to 100 ft. of drill.
10 to 12 lbs. per acre)

Culture—A rich black soil is best for spinach; in this it will grow quickly, and is most tender and succulent. For main crop the seed is usually sown the previous fall during September and protected through the winter by a covering of leaves or straw, which should be raked off early in the spring. Beginning early in the spring, as soon as the ground can be worked, it may be sown at any time during the season. Rake the soil fine and sow broadcast, covering one-half inch deep.

Long Standing—Excellent for spring planting. The leaves are large, thick, fleshy and crumpled.

Bloomsdale or Savoy Leaved—The numerous large leaves are curled, wrinkled and blistered. The best for fall or early spring sowing, or for shipping to market.

Prices: Oz.. 10c; ¼-lb., 25c.



Squash, Mammoth White Bush

SALSIFY or VEGETABLE OYSTER

1 oz. to 50 ft. of drill.

Culture—Salsify requires a light, rich, sandy soil. As soon as the ground can be prepared in the spring, sow the seed one and one-half inches deep in rows one and one-half feet apart. When the plants are a few feet high, thin out to four inches apart in the row. The roots are not injured by freezing, and may be left in the ground all winter; this improves the flavor. Or they may be lifted and stored in cellar. Mammoth Sandwich Island—The best variety.

Prices: Oz., 15c; ¼-lb., 50c.



SQUASH

(1 oz. of seed for 25 hills; 3 to 4 lbs. per acre)

Culture—The squash does best in good rich soil. When the ground has become well warmed—after corn planting time, plant six or eight seeds in hills three by three feet apart for the bush sort, and five by five feet apart for the long running winter sorts. When the plants have made three or four leaves, thin out all but the three strongest in each hill. When insects molest the plants, dust with Slug Shot, or similar preparation.

Summer Sorts

Mammoth White Bush—An improved strain of the well known White Bush or Patty Pan, but twice as large. The color is a beautiful white; they ripen early and are wonderfully productive.

Giant Summer Crookneck—This new squash is not only earlier than the old Summer Crookneck, but grows nearly twice as large, sometimes reaching a length of two feet. It is of true bush habit and of fine quality; color a bright yellow.

White Summer Crookneck—Similar in size and shape to the old Crookneck, but of a beautiful ivory white color. It is of fine quality, productive, and its attractive appearance makes it a very desirable sort to grow for market.

Fall and Winter Sorts

Fordhook—A good variety for early winter or even summer use. The fruit is oblong, slightly ridged; is creamy yellow outside and the flesh is thick, and when cooked



Squash, Hubbard

is of most delicious flavor. Is solid and hard and is a splendid keeper.

Hubbard—The most popular and widely used of the winter squashes. Fruit is oblong and pointed, heavily warted, dark green in color, with orange-colored flesh. Is remarkable for its keeping qualities.

Chicago Warted Hubbard—The ideal Hubbard for home or winter market. Very large and uniform in size. Has a rich dark green skin, which is rough and heavily warted.

Prices: Oz., 10c; ¼-lb., 35c.



Tomato, Earliana

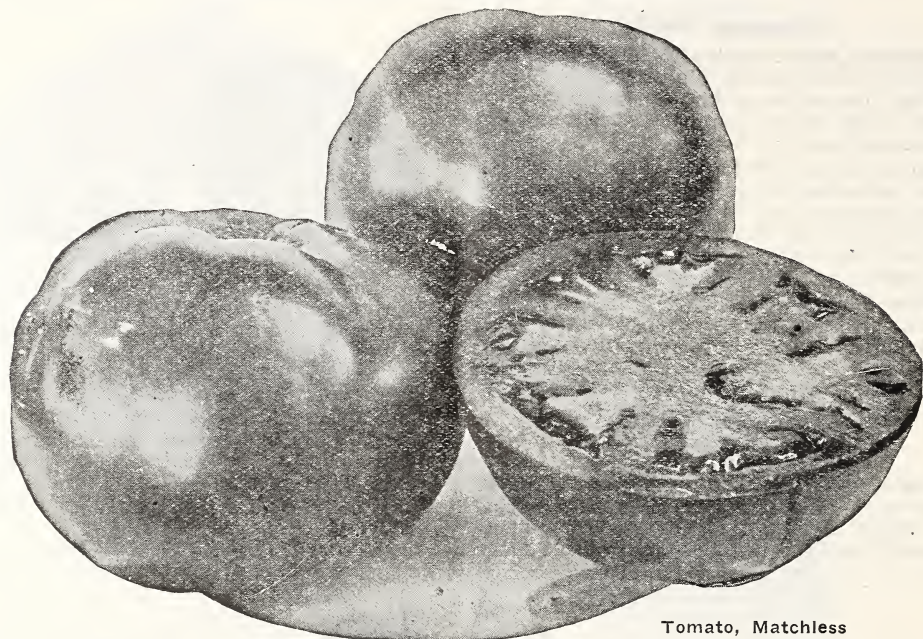
TOMATO

(1 oz. of seed will produce 3000 plants)

Culture—The best crops are grown in warm light soil. For extra early fruit the seed should be sown in a hot-bed about the first week in March. Sow seed in rows four inches apart and cover one-half inch deep. When the weather becomes warm out of doors, gradually harden them by exposing them to the air. When all danger of frost is past set out in the open and water until

the plants are established. For later use the seed may be sown out of doors. An easy method is to plant five or six seeds in hills three feet apart, and when a few inches high pull out all but the strongest plant; when large enough the plants should be trained to stakes or trellis.

Spark's Earliana—Remarkably early. Wonderfully prolific. Of late years big profits have been made in growing extra early tomatoes, and many new sorts have been introduced with extravagant praise and



Tomato, Matchless

TOMATO

claims for earliness. Spark's Earliana easily has the lead, both in earliness and productiveness. It is a wonderful yielder—remarkable not only for its earliness, but also for its large size, fine shape and beautiful red color.

Dwarf Champion—Of dwarf, upright and compact habit, forming a small tree which requires no staking or other support. The fruit is uniform in shape; color a purplish red; very early and wonderfully productive.

Livingston's Beauty—The smoothest and best of the large purple sorts. Very productive and used largely for canning. Fine quality.

The Stone—This variety has attained great favor with market gardeners and canners everywhere. Its solidity and bearing qualities are remarkable; its color is a beautiful red; in shape it is perfectly smooth and thick from stem to blossom end, making it very handsome and salable.

Chalk's Early Jewel—The largest, smoothest and fine flavored, extra early bright red tomato. About ten days later than Spark's Earliana. It is even a heavier cropper, with tomatoes of larger size and sweeter flavor, produced throughout the season.

Pear-Shaped Red and Yellow—Small fruits, growing in clusters. Exceedingly productive. Much used for preserving. Each, red or yellow.

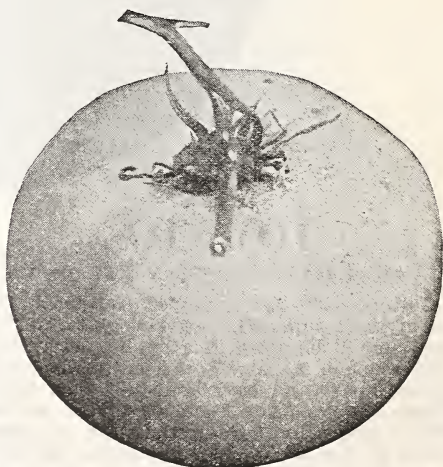
Acme—Hardy and productive; the first fruits ripen very early, and it continues in bearing until cut down by frost. Fruit

round, smooth and of good size; solid and of fine flavor.

Ponderosa—Splendid in every way, of very large size, often reaching a weight of three pounds each; perfect in form and color, as solid as Beefsteak and of finest quality and flavor.

Matchless—A standard large fruited main crop sort, of bright red color. The fruits are always of a uniform shape, heavy and meaty; very handsome in appearance and of superior flavor.

Prices: Oz., 30c; $\frac{1}{4}$ -lb., \$1.00; except Ponderosa, oz., 40c; $\frac{1}{4}$ -lb., \$1.40.



Tomato, The Stone



TURNIP

(1 oz. to 200 ft. of drill; 2 lbs. per acre)

Culture—Turnip is one of the first seeds to be sown in the spring. As soon as the ground can be worked, spade or plow deeply and prepare the surface finely, raking off all clods and stones. Sow the seeds at once in the freshly dug soil; sow very thinly and rake the seed into the soil one-half inch deep; when up thin out to six inches apart. Turnips become tough and strong during the hot summer weather, and the sowing should be so regulated that they will become fit for use either in early summer or late autumn. For winter use, sow from the middle of July to the end of August.



Turnip, Purple Top Flat Strap Leaf

Early Purple-Top Milan—Quite the earliest turnip in cultivation; medium size; flesh and skin white; purple top.

Early White Milan—One of the earliest white varieties, with small leaves. Used for spring and summer planting, furnishing a continuous supply of fine-flavored, tender-skinned turnips; clear ivory-white inside and out.

Purple Top Strap-Leaf—A very popular variety in this section for either family or market use; large size, white, purple above ground; flesh fine grained.

Golden Ball—A rapid grower of excellent flavor; bright yellow color; good keeper and a superior table variety or for stock.

Early White Flat Dutch—An early white-fleshed strap-leaved variety; for quick growth, mild flavor and excellent quality.

Purple Top Globe—Solid, very sweet, slow to get pithy. The very best variety for the summer season. Indeed, the best for any season, but slower to mature than the Strap-Leaf.

White Egg—Perfectly smooth, grows quickly, tender and mild, unequaled table sort.

Long White Cow Horn—Especially recommended for feeding; roots very long, heavy cropper.

Amber Globe—The best yellow field sort, heavy cropper, large size and keeps well.
Prices: Oz., 10c; ¼-lb., 30c; except Milans, oz., 10c; ¼-lb., 35c.

RUTABAGA

Long Island Purple Top—An American yellow-fleshed sort, large size; best keeper.
Prices: Oz., 10c; ¼-lb., 30c; except Milans, oz., 10c; ¼-lb. 35c.

FLOWER SEEDS

NASTURTIIUMS

For the time and labor required no other annual will produce such a lavish profusion of bloom for so long a time as Nasturtiums, and for brilliance and variety of color they are unexcelled. They bloom best in thin, well-drained soil; the richer the soil the fewer blooms and more leaf-growth. Dwarf Nasturtiums make fine bedding and border plants; the tall sorts are well adapted for covering trellises, unsightly places, etc.

Tall or Giant Nasturtiums—

Dwarf or Tom Thumb Nasturtiums—

Prices: Oz., 10c; ¼-lb., 35c.

SWEET PEAS IN MIXTURES

Special Mixture—A peerless mixture and absolutely the finest that can be made. It is a blend of the best sweet peas in cultivation, no dull colors, all choice giant flowering varieties of every color and type, the colors being evenly distributed throughout. No matter at what price or under what high-sounding name it may be offered, for diversity of color, size and beauty of flowers, no other sweet pea

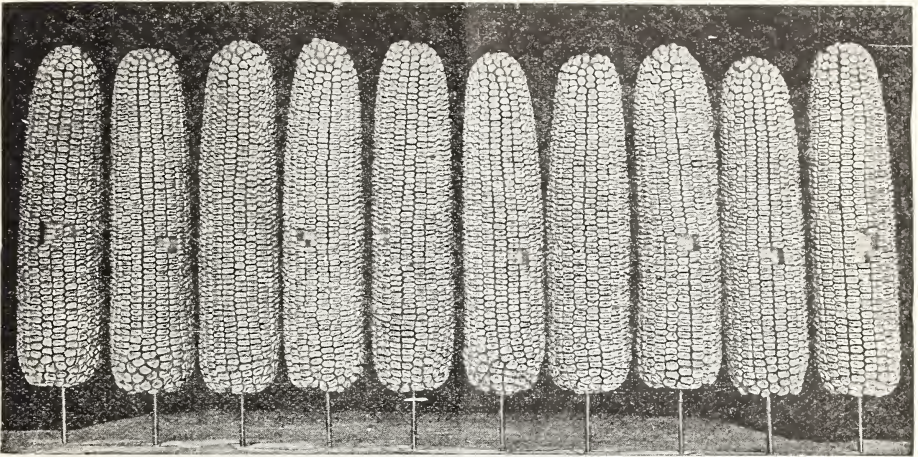


mixture can surpass our "Special Mixture."

Superb Spencer Mixture—The newest introduction in sweet peas, differing from the old type in having waved or fluted standards. The flower stems are 12 to 14 inches long, very strong, and usually bear four blooms, which, under favorable growing conditions, measure two inches across.

Prices; Special Mixture, Oz., 10c; ¼-lb., 35c;
Spencer Mixture, Oz., 15c; ¼-lb., 60c.

Sweet Pea Culture. To secure the longest possible season of bloom the seed must be planted early. The best mode of planting is the trench method. The trench is dug two feet deep and two feet wide, and filled nearly to the surface of the ground with a mixture of well rotted manure and rich soil, with a six-inch layer of soil at the top. During dry weather the ground should be thoroughly soaked once or twice each week.



SELECTED SEED CORN

Carefully Sorted, Perfectly Cured and Tested for Growth

All our Corn is grown especially for Seed purpose from pure, high-bred stocks and in isolated fields to prevent mixing. Every ear is carefully inspected and the tips and butts are removed before shelling. Our Seed Corn warehouse is equipped with improved machinery for putting the stock in the finest possible condition and at a minimum expense, so that we can offer it at moderate prices.

Golden Beauty—120 Days—For general planting in this section we know of no corn that will give better satisfaction than the big, handsome Golden Beauty. It is the largest grained and finest corn in appearance we have ever seen.

Ninety Day Yellow—90 Days—A pure bred yellow corn selected through many years not only for early maturity but for high-yielding qualities as well. The yield per acre has been steadily increased until it is not unusual for it to produce 75 to 80 bushels per acre, under favorable circumstances. It is specially recommended for planting in districts where the seasons are short or for late planting in wet seasons.

Reid's Yellow Dent—110 Days—The most popular yellow corn throughout the corn belt. It is, perhaps, more widely grown than any other variety. A pure strain of the highest type; always a prize winner at the fairs and other corn shows. A remarkably uniform sort. The ears are 10 to 12 inches long, of perfect shape with well-filled butts and tips.

Improved Leaming—100 Days—Of a rich brownish yellow color, a deep and somewhat rough kernel. Excellent yielder.

ears average 10 inches long and weigh three-fourths to one pound each.

Improved Calico—110 to 115 Days—An improved strain of the old Calico or Speckled Corn, still a favorite, large main crop sort with many farmers and feeders. The Improved Calico produces a large ear and often two good ears to the stalk, the ears running from 10 to 12 inches in length, and having from twelve to fourteen rows of large deep grains.

Ninety Day Red or Bloody Butcher—90 Days—Very early, hardy and prolific variety especially valuable for early feeding and late planting. It may be planted end of June and still matures ahead of frost.

Blue and White Squaw—Hard flinty grains; slim ears, speckled blue and white. An extremely early and hardy sort. Withstands drouth. Recommended for Western Kansas and Oklahoma or as a sort for early feed.

90 Day White—Originated with the Wisconsin Agricultural College and widely distributed over the Northwest. It is the largest extra early white corn grown; has deep kernels. Heavy yielder. Ripens perfectly in 90 days.

St. Charles White—Main crop. A pure white corn with red cob. Large ears; a good yielder. Especially recommended as an ensilage corn.

Extra Early Adams—80 Days—The earliest white corn in cultivation. The ears average about eight inches in length, with ten to twelve rows of short, broad grains. It is a fair yielder, but its greatest value lies in its extreme earliness.

Iowa Silver Mine—110 Days—The ears are long and uniform, often ten to twelve inches in length, with usually eighteen rows of deep, pure white grain.

Boone County White—120 Days—A pure bred white corn of very large size and high fattening and milling qualities. Tips and butts that are exceptionally well filled out.



Our STANDARD BRAND Grass and Clover Seeds

Are Specially Selected for High Purity
and Strong Growth

Handling and Cleaning, as we do, great quantities of Grass and Clover Seeds annually, we have excellent opportunities for selecting the finest and purest grades. All seeds offered under our trade mark are carefully tested for purity and germination, and are quite free from dangerous weeds. Buyers may rely upon these facts with absolute certainty.

Alfalfa

The most valuable forage plant in cultivation, and has always proven highly profitable wherever grown. We handle annually many cars of high-grade Alfalfa seed. The seed we offer is especially selected for purity and germinating qualities.

Awnless or Hungarian Brome Grass

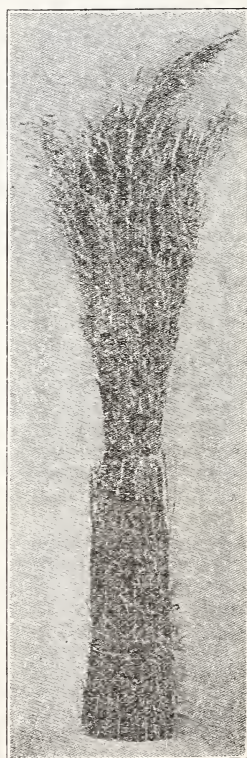
Stands excessive drought or extreme cold without injury. The grass that has made good in the dry sections of the West.

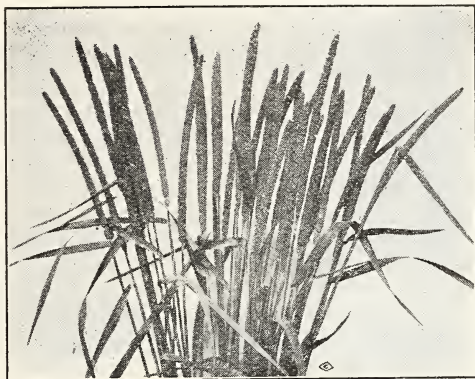
This extensively advertised grass was introduced from Russia. It is a vigorous, hardy perennial, with strong, creeping root stalks; smooth, upright leafy stems, one to four inches high and loose, open seed heads four to eight inches long. In a few years it forms a very tough sod, soon crowding out other grasses, clovers and weeds.

Meadow Fescue or English Blue Grass

(*Festuca pratensis*)

The name English Blue Grass commonly applied to this grass is sometimes confusing, as there is little similarity between it and





Timothy

the common Kentucky Blue Grass. Meadow Fescue grows much taller and is not injured by wet weather; is easy to get a stand and will furnish a large amount of pasture and hay; neither does it seem to be injured by close cropping or tramping.

Red Top or Herds Grass

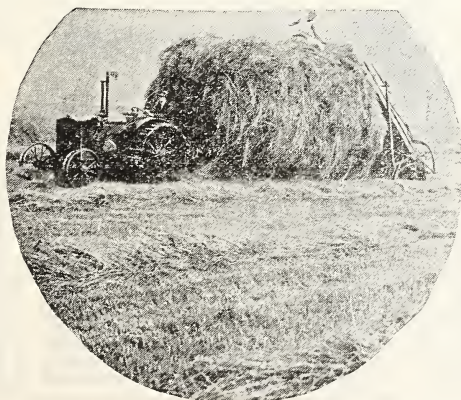
Grows well on all soils, whether sandy, thin, dry lands or rich heavy or wet soils; it is one of the most satisfactory grasses that can be grown; a fine pasture grass and also well suited for meadows.

Timothy

The best known grass in the United States and makes the standard hay of commerce. It succeeds best on rich, moist soil; satisfactory crops cannot be grown on high, dry, sandy soil.

Orchard Grass

One of the best grasses for pasture or meadow. It is hardy, vigorous grower, and succeeds in the shade as well as in the sunshine. Especially valuable for sowing in orchard or woodland. It grows well on all soils except on stiff, heavy clay or wet land.



Kentucky Blue Grass

The most widely known and best of all pasture grasses. It starts early in the spring and furnishes an immense amount of grazing throughout the season. The ideal grass to produce a nice velvety lawn.

Central Park Lawn Mixture

This is a mixture of the very best grades of Kentucky Blue Grass, White Clover, Red Top, and English Blue Grass. It forms a quick heavy turf and the same kind of mixture as used in the beautiful Central Park at Norfolk. Be sure and include a few pounds in your order at 50c per lb.

Tall Meadow Oat Grass

This grass is increasing in favor wherever grown. It is without doubt one of our most valuable grasses, either for hay or pasture. It makes more grazing than Orchard Grass and yields about twice as much as Timothy. It may be cut twice in a season.



Orchard Grass

English or Perennial Rye Grass

A low growing grass of little value for meadows, but very desirable for pastures or lawns. Like Kentucky Blue Grass, it forms a dense, even sod and grows so quickly that by its use a fine lawn may be had in six weeks from sowing.

Italian or Annual Rye Grass

A most valuable grass for all sections. Sown in the fall from August to October it comes up very quickly, forming a thick, even growth and provides fine grazing during the winter and spring.

Yellow and White Blossom Sweet Clover

Sweet Clover is becoming more and more popular in this territory each year for pasture and hay and also as a soil builder. We have it on hand almost the year round, and always glad to quote prices, etc. Also handle Hubam Sweet Clover.



CLOVERS

Alsike or Swedish Clover—A very hardy and vigorous sort which does well on all soils, but particularly on those inclined to be wet and sandy.

Mammoth Clover—Grows four to six feet high. The variety best adapted for plowing under as green manure on account of the enormous mass of tops and roots which it produces.

Red Clover—The most important of all forage plants. Where Red Clover can be successfully grown it takes the lead over all other forage crops.

White Clover—A dwarf, low growing sort of great value for pasture; succeeds on all soils and under all conditions.

We are Headquarters for the Following Field Seeds

Dwarf Essex Rape

Canada Field Peas

Soy Beans or Soja Beans

Southern Cow Peas

New Era

Whip-Poor-Will

Flax

Kaffir Corn

Red Kaffir Corn

White Kaffir Corn

Millet

True Round Seeded German Millet

Common Millet

Siberian or Russian Millet

Hungarian Millet

Hog or Broom Corn Millet

Japanese Barnyard Millet

Pearl or Cat Tail Millet

Sorghum or Sugar Cane

Early Amber

Early Orange

Sumac or Red Top Cane

Broom Corn

Improved Evergreen

California Golden

Oklahoma Dwarf

Sunflower

Mammoth Russian

Milo Maize Feterita

Jerusalem Corn

Hairy or Winter Vetch

Russian Speltz or Emmer

Japanese Buckwheat

Sudan Grass

SUDAN GRASS—A Wonderful Quick Growing Summer Hay Grass

Sudan Grass is a big yielder. Sudan Grass can never become a pest, for Sudan Grass is an annual with short fibrous roots that are killed by frost. Its greatest value is for hay, which is palatable and well liked by stock—the entire plant, leaves, stems, and heads, is eaten. It should largely supplant millet, which yields only a single cutting, whereas Sudan Grass will give at least two, and where the growing season is long, four cuttings a season have been had. It stools out wonderfully after the first cutting; it is not uncommon to find more than a hundred stems growing from a single root. Four tons to the acre is not an exceptional yield; eight tons have been grown where the season allowed four cuttings. The quality of the hay is good, analysis showing that it is equal to timothy and superior to millet. It is also strongly drought resistant.

Reference Tables

Legal and customary weights per bushel and quantities usually sown per acre

	Quantity Per Acre	Lbs. Per Bu.		Quantity Per Acre	Lbs. Per Bu.
Alfalfa	15 to 20 lbs.	60	Millet—German or Common	½ to 1 bu.	50
Barley	2½ bu.	48	Millet—Siberian	¾ to 1½ bu.	50
Buckwheat	30 to 60 lbs.	50	Millet—Japanese Barnyard	8 to 12 lbs.	30
Bluegrass—Kentucky	2 to 3 bu.	14	Millet—Pearl or Cat-tail	10 to 12 lbs.	56
Bluegrass—English	1 to 1½ bu.	24	Mustard	10 to 12 lbs.	58
Beans—Garden	1 bu.	60	Milo Maize—In Drills	8 to 12 lbs.	56
Beans—Sofa	¾ to 1½ bu.	60	Oats	2 to 3 bu.	32
Beans—Castor	4 to 5 lbs.	46	Onion Sets—Bottom	7 to 8 bu.	32
Beans—Lima	40 to 60 lbs.	56	Onion Sets—Top	5 to 6 bu.	28
Beans—Navy	¾ bu.	60	Orchard Grass	2 to 3 bu.	14
Bermuda Grass	5 lbs.	30	Osage Orange		33
Bromus Inermis	15 to 20 lbs.	14	Peas, Field—Broadcast	2 to 3 bu.	60
Broom Corn	8 to 12 lbs.	46	Peas, Garden—Smooth Seeded	3 bu.	60
Clover—White	6 to 8 lbs.	60	Peas, Garden—Wrinkled Seeded	3 bu.	56
Clover—Red	8 to 12 lbs.	60	Peanuts	1 peck	22
Clover—Alsike	8 to 10 lbs.	60	Potatoes—White or Irish	8 to 12 bu.	60
Clover—Crimson	10 to 15 lbs.	60	Potatoes—Sweet	10,000 to 15,000 plants	50
Clover—Mammoth	8 to 12 lbs.	60	Red Top—Fancy Solid Seed	10 to 12 lbs.	14
Cow Peas	¾ to 1 bu.	60	Red Top—Chaff	30 to 40 lbs	14
Corn—Shelled	¾ bu.	56	Rape, Dwarf Essex—Broadcast	5 lbs.	50
Corn—On Ear		70	Rye	1½ to 2 bu.	56
Corn—Pop	6 to 8 lbs.	50	Ryegrass—English or Perennial	30 to 40 lbs.	24
Cane or Sorghum—In Drills	8 to 12 lbs.	50	Ryegrass—Italian	30 to 40 lbs.	24
Cane or Sorghum—Broadcast	1 to 2 bu.	50	Rice—Rough		45
Cotton Seed		30	Sorghum—In Drills	8 to 12 lbs.	56
Flax	1 to 1½ bu.	56	Sorghum—Broadcast	1 to 2 bu.	56
Fescue—Meadow	1 to 1½ bu.	24	Speltz	2½ bu.	40
Hemp	½ to 1 bu.	44	Sweet Corn	6 qts.	Meas.
Hungarian Millet	½ to 1 bu.	48	Sunflower—Russian	8 lbs.	24
Johnson Grass	1 bu.	25	Timothy	12 to 20 lbs.	45
Jerusalem Corn—In Drills	8 to 12 lbs.	56	Tall Meadow Oat Grass	20 to 30 lbs.	14
Kaffir Corn—In Drills	8 to 12 lbs.	56	Vetches or Tares	2 bu.	60
Kaffir Corn—Broadcast	1 to 2 bu.	56	Wheat	1½ to 2 bu.	60
Lawn Grass	1 lb. to 200 sq.ft.	..			

Quantity of seed required to produce a given number of plants, giving length of rows and number of hills

	Quantity Per Acre		Quantity Per Acre
Asparagus—1 oz. to 500 plants	..	Melon, Water—1 oz. to 30 hills	4 to 5 lbs.
Beans, Dwarf—1 qt. to 100 feet of row	1 bu.	Mustard—1 oz. to 100 ft. of row	..
Beans, Pole—1 pt. to 100 hills	½ bu.	Okra—1 oz. to 100 ft. of row	8 lbs.
Beets, Garden—1 oz. to 50 ft. of row	7 to 8 lbs.	Onion Seed—½ oz. to 100 ft. of row	4 to 5 lbs.
Beets, Mangel or Stock—1 oz. to 100 ft. of row	5 to 6 lbs.	Onion Seed for sets	70 to 80 lbs.
Cabbage—1 oz. to 4,000 plants	..	Onion Sets, bottom—1 qt. to 30 ft. of row	7 to 8 bu.
Carrot—1 oz. to 100 feet of row	3 to 4 lbs.	Onion Sets, top—1 qt. to 40 ft. of row	5 to 6 bu.
Cauliflower—1 oz. to 3,000 to 4,000 plants	..	Parsnips—½ oz. to 100 ft. of row	3 to 4 lbs.
Celery—1 oz. to 6,000 to 8,000 plants	..	Parsley—½ oz. to 100 ft. of row	3 to 4 lbs.
Collards—1 oz. to 5,000 plants	..	Peas, Garden—1 qt. to 100 ft. of row	3 bu.
Corn, Sweet—1 pt. to 100 hills	6 to 8 qts.	Peas, Field—Broadcast	3 bu.
Cucumber—1 oz. to 50 hills	2 to 3 lbs.	Pepper—1 oz. to 1,000 plants	..
Egg Plant—1 oz. to 1,500 plants	..	Pumpkin—½ lb. to 100 hills	3 to 4 lbs.
Endive—1-3 oz. to 100 ft. of row	4½ lbs.	Radish—1 oz. to 100 ft. of row	10 to 12 lbs.
Horse Radish Roots	10,000 to 15,000 plants	Salsify—1 oz. to 50 ft. of row	..
Kale—1 oz. to 4,000 plants	..	Spinach—1 oz. to 50 ft. of row	10 to 12 lbs.
Kohl Rabi—1 oz. to 3,000 plants	..	Squash—1 oz. to 25 hills	3 to 4 lbs.
Leek—1-3 oz. to 100 ft. of drill	4 lbs.	Tomato—1 oz. to 3,000 plants	..
Lettuce—1 oz. to 2,000 plants	4 lbs.	Tobacco—1 oz. to 4,500 plants	..
Melon, Musk—1 oz. to 50 hills	2 to 3 lbs.	Turnips—1 oz. to 200 ft. of row	2 lbs.

Number of plants to the acre at given distances

Dis. Apart	No. Plants	Dis. Apart	No. Plants	Dis. Apart	No. Plants
12x 1 Inches	522,720	30x16 Inches	13,068	48x36 Inches	3,630
12x 3 "	174,240	30x20 "	10,454	48x48 "	2,723
12x12 "	43,560	30x24 "	8,712	60x36 "	2,901
16x 1 "	392,040	30x30 "	6,970	60x48 "	2,178
18x 1 "	348,480	36x 3 "	58,080	60x60 "	1,743
18x 3 "	116,160	36x12 "	14,520	8x 1 foot	5,445
18x12 "	29,040	36x18 "	9,680	8x 3 "	1,815
18x18 "	19,360	36x24 "	7,260	8x 8 "	680
20x 1 "	313,635	36x36 "	4,840	10x 1 "	4,356
20x20 "	15,681	42x12 "	12,446	10x 6 "	726
24x 1 "	261,360	42x24 "	6,223	10x10 "	435
24x18 "	15,520	42x36 "	4,148	12x 1 "	3,630
24x24 "	10,890	48x12 "	10,890	12x 5 "	736
30x 1 "	209,088	48x18 "	7,790	12x12 "	30
30x 6 "	34,848	48x24 "	5,445	16x 1 "	2,722
30x12 "	17,424	48x30 "	4,356	16x16 "	17

FIELD, GARDEN And FLOWER SEEDS



STECHER CO. ROCHESTER, N.Y.

THE MANGELSDORF SEED CO.

EXCLUSIVELY WHOLESALE—ORDER FROM YOUR LOCAL DEALER

ESTABLISHED 1875

ATCHISON, KANSAS